



STIC Search Report

Biotech-Chem Library

STIC Database Tracking Number: 112891

TO: Sheridan Snedden

Location: REM/3B76

Art Unit: 1653

January 28, 2004

Case Serial Number: 09/889519

From: P. Sheppard

Location: Remsen Building

Phone: (571) 272-2529

sheppard@uspto.gov

Search Notes

1/2891
SEARCH REQUEST FORM

79298

Requestor's
Name:

Sheridan Snedden

Serial

Number: 09/889,519

Date:

1/28/2004

Phone:

2-0959

Art Unit:

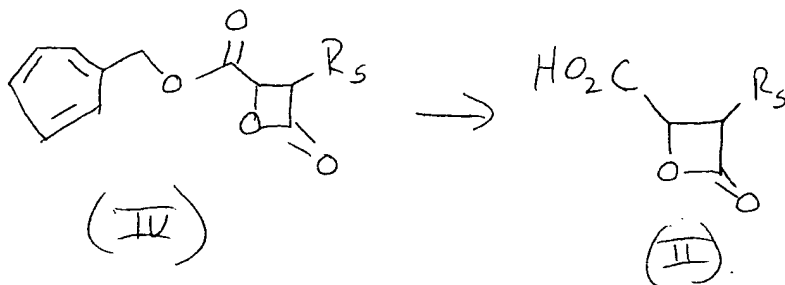
1653

2A REA 3876
Search Topic:

Please write a detailed statement of search topic. Describe specifically as possible the subject matter to be searched. Define any terms that may have a special meaning. Give examples or relevant citations, authors keywords, etc., if known. For sequences, please attach a copy of the sequence. You may include a copy of the broadest and/or most relevant claim(s).

Please Search Compounds
(II) and (IV) where R_5 is

- R_5 :
- ① sec-butyl
 - ② alkyl, substituted or unsubstituted
 - ③ alkenyl, " or "
 - ④ aralkyl, " or "
 - ⑤ -H



See also attached sheet.

STAFF USE ONLY

Date completed:

1/28/04

Searcher:

S. J. J. J.

Terminal time:

Elapsed time:

CPU time:

Total time:

Number of Searches:

Number of Databases:

Search Site

STIC

CM-1

Pre-S

Type of Search

N.A. Sequence

A.A. Sequence

Structure

Bibliographic

Vendors

IG Suite

STN

Dialog

APS

Geninfo

SDC

DARC/Questel

Other

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=> fil hcaplus
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FILE 'HCAPLUS' ENTERED AT 15:41:15 ON 28 JAN 2004

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FILE COVERS 1907 - 28 Jan 2004 VOL 140 ISS 5

FILE LAST UPDATED: 27 Jan 2004 (20040127/ED)

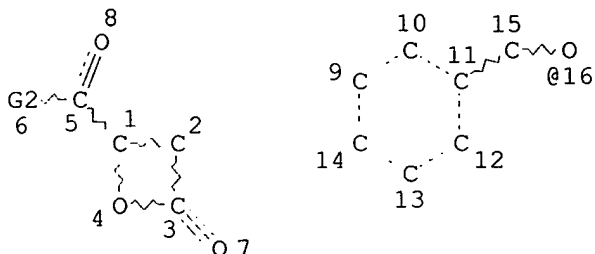
This file contains CAS Registry Numbers for easy and accurate substance identification.

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DEFAULT ECLEVEL IS LIMITED
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GRAPH ATTRIBUTES:
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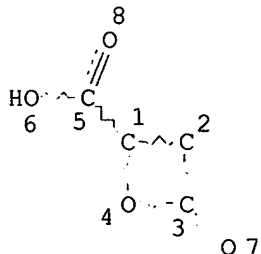
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RSPEC I
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L7 STR
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NODE ATTRIBUTES:

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DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RSPEC I

NUMBER OF NODES IS 8

STEREO ATTRIBUTES: NONE

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L9 52 SEA FILE=REGISTRY ABB=ON PLU=ON L5 NOT L8

L10 19 SEA FILE=HCAPLUS ABB=ON PLU=ON L8

L11 67 SEA FILE=HCAPLUS ABB=ON PLU=ON L9

L12 8 SEA FILE=HCAPLUS ABB=ON PLU=ON L10 AND L11

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=> d ibib abs hitrn l12 1-8

L12 ANSWER 1 OF 8 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2002:640602 HCAPLUS

DOCUMENT NUMBER: 137:353339

TITLE: Influence of structural parameters on the ring-opening polymerization of new alkyl malolactonate monomers and on the biocompatibility of polymers therefrom

AUTHOR(S): Bizzarri, Ranieri; Chiellini, Federica; Ober, Chris K.; Saltzman, W. Mark; Solaro, Roberto

CORPORATE SOURCE: Department of Chemistry and Industrial Chemistry, University of Pisa, Pisa, 56126, Italy

SOURCE: Macromolecular Chemistry and Physics (2002), 203(10/11), 1684-1693

CODEN: MCHPES; ISSN: 1022-1352

PUBLISHER: Wiley-VCH Verlag GmbH

DOCUMENT TYPE: Journal

LANGUAGE: English

AB The geometry of several alkyl malolactonate monomers was investigated by NMR and semiempirical computational methods. The results obtained by both techniques indicated that the geometry of the malolactone ring is almost independent of the nature of the side ester group. ¹³C NMR anal. of the polymer backbone stereochem. ruled out the occurrence of stereoelective processes in the polymn. of racemic monomers. The obsd. influence of the bulkiness of the alkyl group on the polymn. rate was therefore attributed to steric interactions between this group and the polymer growing end. Preliminary in-vitro investigation of cell adhesion and proliferation on the surface of homopolymers and copolymers of the investigated alkyl malolactonates suggested a possible correlation between polymer hydrophobicity and biocompatibility.

IT 76653-40-2P 182230-36-0P 404568-03-2P

404568-04-3P 404568-05-4P 404568-06-5P

RL: BUU (Biological use, unclassified); PRP (Properties); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)

(investigation of structural parameters of alkyl malolactonate monomers and effect of monomer structure on their ring-opening polymn. on the biocompatibility of polymers therefrom)

IT 76652-44-3 90730-97-5

RL: PRP (Properties)

(monomer; investigation of structural parameters of alkyl malolactonate monomers and effect of monomer structure on their ring-opening polymn. on the biocompatibility of polymers therefrom)

REFERENCE COUNT: 53 THERE ARE 53 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 2 OF 8 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2000:672254 HCAPLUS
 DOCUMENT NUMBER: 134:197932
 TITLE: Poly(.beta.-malic acid) homo- and copolymers synthesis and their use for the preparation of nanoparticles
 AUTHOR(S): Cammas-Marion, S.; Escalup, R.; Gref, R.; Provost, L.; Guerin, P.; Ponchel, G.
 CORPORATE SOURCE: Laboratoire de Recherche sur les polymeres, UMR CNRS C7581, Universite Paris Valde Marne, Thiais, 94230, Fr.
 SOURCE: Proceedings of the International Symposium on Controlled Release of Bioactive Materials (2000), 27th, 650-651
 CODEN: PCRMEY; ISSN: 1022-0178
 PUBLISHER: Controlled Release Society, Inc.
 DOCUMENT TYPE: Journal
 LANGUAGE: English

AB Polyesters of poly(.beta.-malic acid alkyl esters) were prep'd. and nanoparticles prep'd. from them. High drug loading of halofantrine in the polyester nanoparticles was achieved.

IT 76653-40-2P 327604-90-0P 327614-59-5P

RL: PRP (Properties); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
 (poly(.beta.-malic acid) homo- and copolymers synthesis and their use for the prepn. of nanoparticles)

REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

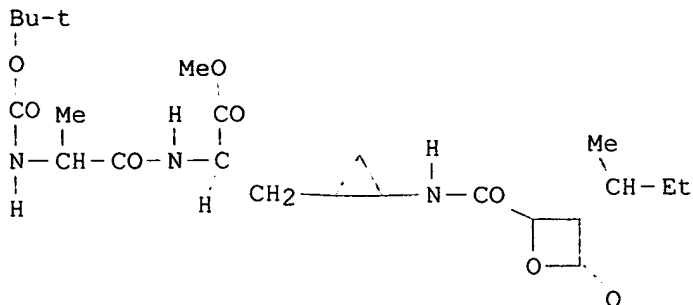
L12 ANSWER 3 OF 8 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2000:513497 HCAPLUS
 DOCUMENT NUMBER: 133:120677
 TITLE: Preparation of UCK 14A2 derivatives as proteasome inhibitors
 INVENTOR(S): Yamaguchi, Hiroyuki; Asai, Akira; Mizukami, Tamio; Yamashita, Yoshinori; Akinaga, Shiro; Ikeda, Shun-ichi; Kanda, Yutaka
 PATENT ASSIGNEE(S): Kyowa Hakko Kogyo Co., Ltd., Japan
 SOURCE: PCT Int. Appl., 115 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000043000	A1	20000727	WO 2000-JP247	20000120
W:	AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
RW:	GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG			
CA 2359561	AA	20000727	CA 2000-2359561	20000120
EP 1166781	A1	20020102	EP 2000-900834	20000120
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO			
PRIORITY APPLN. INFO.:			JP 1999-12391	A 19990120
			JP 1999-288539	A 19991008

OTHER SOURCE(S):
GI

MARPAT 133:120677



AB The title compds. $R_1(A)p(CH_2)_nX_1(CH_2)_mX_2COCH(OR_3)CH(R_5)COR_4$ [$A = CHR_2$; m and n are each independently an integer of 0 to 10; p is 0 or 1; R_1 is hydrogen, substituted or unsubstituted alkyl, substituted or unsubstituted cycloalkyl, or the like; and R_2 is hydrogen, COR_{13} , etc.; further details on R_1 and R_2 are given; R_{13} is hydroxy, substituted or unsubstituted alkoxy, etc.; X_1 is a bond, substituted or unsubstituted alkylene, substituted or unsubstituted cycloalkylene, etc.; X_2 is oxygen, sulfur, etc.; R_3 is hydrogen, substituted or unsubstituted alkyl, etc.; and R_4 is hydroxyl, mercapto, substituted or unsubstituted alkoxy, etc., or R_3 and R_4 together represent a bond; and R_5 is hydrogen, substituted or unsubstituted alkyl, substituted or unsubstituted alkenyl, etc.] are prepd. The title compd. I in vitro showed IC_{50} of 0.05 μM against proteasome. Formulations are given.

IT **284484-00-0P 284484-01-1P**

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. of UCK 14A2 derivs. as proteasome inhibitors)

IT **177019-47-5**

RL: RCT (Reactant); RACT (Reactant or reagent)
(prepn. of UCK 14A2 derivs. as proteasome inhibitors)

IT **284484-25-9P 284484-28-2P 284484-29-3P**

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. of UCK 14A2 derivs. as proteasome inhibitors)

REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 4 OF 8 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1998:698876 HCAPLUS

DOCUMENT NUMBER: 130:38756

TITLE: Synthesis and polymerization of benzyl
(3R,4R)-3-Methylmalolactonate via enzymic preparation
of the chiral precursor

AUTHOR(S): Bear, Marie-Maud; Monne, Claire; Robic, Daniel;
Campion, Genevieve; Langlois, Valerie; Rimbault,
Alain; Bourbouze, Richard; Guerin, Philippe

CORPORATE SOURCE: Laboratoire de Physico-Chimie des Biopolymeres, UMR 27
CNRS-Universite Paris XII, Thiais, F-94320, Fr.

SOURCE: Chirality (1998), 10(8), 727-733
CODEN: CHRLEP; ISSN: 0899-0042

PUBLISHER: Wiley-Liss, Inc.

DOCUMENT TYPE: Journal

LANGUAGE: English

AB .beta.-Methylaspartate ammonia-lyase, EC 4.3.1.2, (.beta.-methylaspartase) from *Clostridium tetanomorphum* was used to produce a 40/60 molar ratio of (2S,3R)- and (2S,3S)-3-methylaspartic acids, 2a2a and 2b, resp., from mesaconic acid 1 as substrate, on a large scale. To prep. (3R,4R)-3-methyl-4-(benzyloxycarbonyl)-2-oxetanone (benzyl 3-methylmalolactonate) 6, 2a and 2b were transformed, in the first step, into 2-bromo-3-methylsuccinic acids 3a and 3b and sepd. After three further steps, (2S,3S)-3a yielded the .alpha.,.beta.-substituted .beta.-lactone (3R,4R) 6 with a very high diastereoisomeric excess (>95% by chiral gas chromatog.). The corresponding cryst. polymer, poly[benzyl .beta.-(2R,3S)-3-methylmalate] 8, prepd. by an anionic ring opening polymn., was highly isotactic as detd. by ¹³C NMR. Catalytic hydrogenolysis of lactone 6 yielded (3R,4R)-3-methyl-4-carboxy-2-oxetanone (3-methylmalolactonic acid) 7, to which reactive, chiral, or bioactive mols. can be attached through ester bonds leading to polymers with possible therapeutic applications. Because of the ability of .beta.-methylaspartase to catalyze both syn- and anti-elimination of ammonia from (2S,3RS)-3-methylaspartic acid 2ab at different rates, the (2S,3R)-stereoisomer 2a was retained and isolated for further reactions. These results permit the use of the chemoenzymic route for the prepn. of both optically active and racemic polymers of 3-methylmalic acid with well-defined enantiomeric and diastereoisomeric compns.

IT 216576-94-2P

RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of; by catalytic hydrogenolysis of benzyl (3R,4R)-3-methylmalolactonate)

IT 197010-19-8P

RL: SPN (Synthetic preparation); PREP (Preparation)
(synthesis and polymn. of benzyl (3R,4R)-3-Methylmalolactonate via enzymic prepn. of chiral precursor)

IT 216576-95-3P

RL: SPN (Synthetic preparation); PREP (Preparation)
(synthesis and polymn. of benzyl (3R,4R)-3-methylmalolactonate via enzymic prepn. of chiral precursor)

REFERENCE COUNT: 20 THERE ARE 20 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 5 OF 8 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1997:379482 HCAPLUS

DOCUMENT NUMBER: 127:81855

TITLE: Polymers of malic acid 'conjugated with the 1-adamantyl moiety as lipophilic pendant group

AUTHOR(S): Moine, Laurence; Cammas, Sandrine; Amiel, Catherine; Guerin, Philippe; Seville, Bernard

CORPORATE SOURCE: Laboratoire de Physico-Chimie des Biopolymères, UMR 27 CNRS, Université Paris XII, Thiais, 94320, Fr.

SOURCE: Polymer (1997), 38(12), 3121-3127

CODEN: POLMAG; ISSN: 0032-3861

PUBLISHER: Elsevier

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Ethyladamantyl malolactonate and butyladamantanamide malolactonate were prepd., starting from malic acid, following the usual synthesis route described for different malolactonic acid esters. Despite the steric hindrance of both adamantyl groups, the three-step synthesis led to the corresponding lactones with a quite good yield and high purity. Otherwise, ethyladamantyl malolactonate has been obtained by chem. modification of the lateral carboxylic acid function of malolactonic acid. Both ethyladamantyl malolactonate and butyladamantanamide malolactonate were homopolymd. by anionic ring opening polymn. using tetramethylammonium benzoate as initiator. Expected high mol. wt. homopolymers were obtained and characterized by ¹H NMR and size exclusion chromatog. Furthermore, ethyladamantyl malolactonate was copolymd. with benzyl malolactonate in

the molar ratio 5/95. After deprotection of the benzyl protecting groups by catalytic hydrogenolysis, the corresponding poly(.beta.-malic acid-co-ethyladamantyl .beta.-malate) displays a water soly.

IT 90730-97-5, Malolactonic acid

RL: RCT (Reactant); RACT (Reactant or reagent)

(prepn. of polymers of malic acid conjugated with the 1-adamantyl moiety as lipophilic pendant group)

IT 191938-08-6DP, deprotected 191938-08-6P, Benzyl

malolactonate-Ethyladamantyl malolcatonate copolymer

RL: SPN (Synthetic preparation); PREP (Preparation)

(prepn. of polymers of malic acid conjugated with the 1-adamantyl moiety as lipophilic pendant group)

REFERENCE COUNT: 16 THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 6 OF 8 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1996:201873 HCAPLUS

DOCUMENT NUMBER: 124:344800

TITLE: 4-Carboxy-2-oxetanone as a new chiral precursor in the preparation of functionalized racemic or optically active poly(malic acid) derivatives

AUTHOR(S): Leboucher-Durand, Marie-Agnes; Langlois, Valerie; Guerin, Philippe

CORPORATE SOURCE: Lab. Physico-Chimie Biopolymeres, Univ. Paris XII, Thiais, F-94320, Fr.

SOURCE: Polymer Bulletin (Berlin) (1996), 36(1), 35-41
CODEN: POBUDR; ISSN: 0170-0839

PUBLISHER: Springer

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Racemic and optically active 4-carboxy-2-oxetanones were prepd., starting from racemic (R)-4-benzyloxycarbonyl-2-oxetanone by catalytic hydrogenolysis of the lateral benzyl protecting group. This new .beta.-substituted-.beta.-lactone (malolactonic acid), which was considered as totally unstable due to the presence of a carboxyl group, was isolated, characterized, and prepd. in large quantities. Coupling reaction of the liberated -COOH was exemplified by using 2,4,5-trichlorophenol as activating agent and chloramphenicol as bioactive mol., which were bound to malolactonic acid and then copolymd. by anionic ring opening polymn. in the presence of 4-benzyloxycarbonyl-2-oxetanone. This new route conducts to activated derivs. of poly(malic acid) and polymeric drug carriers patterns.

IT 176903-10-9P 176903-12-1P

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(carboxyoxetanone as chiral precursor in prepn. of functionalized racemic or optically active malic acid copolymers)

IT 76652-44-3 99494-21-0

RL: RCT (Reactant); RACT (Reactant or reagent)
(carboxyoxetanone as chiral precursor in prepn. of functionalized racemic or optically active malic acid copolymers)

IT 177019-47-5P

RL: SPN (Synthetic preparation); PREP (Preparation)
(carboxyoxetanone as chiral precursor in prepn. of functionalized racemic or optically active malic acid copolymers)

IT 90730-97-5P, Malolactonic acid

RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(monomer; carboxyoxetanone as chiral precursor in prepn. of functionalized racemic or optically active malic acid copolymers)

L12 ANSWER 7 OF 8 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1992:21770 HCAPLUS

DOCUMENT NUMBER: 116:21770

TITLE: Selective INEPT as an NMR tool for studying repeat unit distribution and stereosequences in poly(.beta.-malic acid) copolymers

AUTHOR(S): Guerin, P.; Girault, J. P.; Caron, A.; Francillette, J.; Vert, M.

CORPORATE SOURCE: Lab. Chim. Biol. Macromol., Univ. Rennes I, Rennes, 35700, Fr.

SOURCE: Macromolecules (1992), 25(1), 143-8
CODEN: MAMOBX; ISSN: 0024-9297

DOCUMENT TYPE: Journal

LANGUAGE: English

AB A 1-dimensional NMR technique, namely selective INEPT for selective insensitive nuclear enhancement by polarization transfer, recently developed for spectral assignment and structural characterization of org. compds., was used for peak assignments in poly(.beta.-malic acid) which was methylated or partially esterified with benzyl alc. then methylated, or partially or totally hydrogenated poly(benzyl .beta.-malate) (I). By comparing the carbonyl NMR resonances of copolymers with different comonomer sequence distributions, it is confirmed that partially hydrogenated I were block copolymers. Selective INEPT NMR was also used to assign carbonyl C atom resonances of optically active stereocopolymers of L-(S)- and D-(R)-benzyl malolactonates. Therefore, selective INEPT, which was used for the 1st time to make peak assignments in copolymers and stereocopolymers, appeared to be a fruitful means of analyzing comonomer sequence distribution provided that repeating units were sensitive to closest neighbors.

IT 88928-81-8DP, hydrogenated, esterified with benzyl alc. or methylated 97332-00-8DP, methylated or partially benzylated 137257-54-6P

RL: PREP (Preparation)
(prepn. and selective polarization-transfer NMR study of structure of)

L12 ANSWER 8 OF 8 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1985:437799 HCAPLUS

DOCUMENT NUMBER: 103:37799

TITLE: Preparation and properties of poly beta-(L-malic acid) and its benzyl ester: functional polyesters of potential biomedical importance

AUTHOR(S): Wojcik, Ronald Thomas

CORPORATE SOURCE: Univ. Massachusetts, Amherst, MA, USA

SOURCE: (1984) 382 pp. Avail.: Univ. Microfilms Int., Order No. DA8500149
From: Diss. Abstr. Int. B 1985, 45(10), 3248

DOCUMENT TYPE: Dissertation

LANGUAGE: English

AB Unavailable

IT 76653-40-2P 97332-00-8P

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(prepn. and properties of, as potential biomedical material)

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E1 THROUGH E26 ASSIGNED

=> fil reg
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 DICTIONARY FILE UPDATES: 27 JAN 2004 HIGHEST RN 642407-31-6

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Experimental and calculated property data are now available. For more
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 to the file summary sheet on the web at:
<http://www.cas.org/ONLINE/DBSS/registryss.html>

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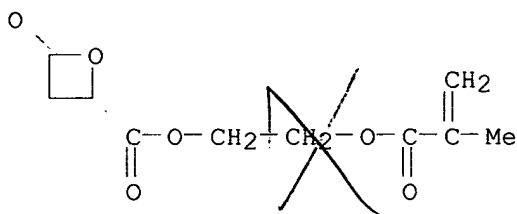
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L13 ANSWER 1 OF 26 REGISTRY COPYRIGHT 2004 ACS on STN
 RN 404568-06-5 REGISTRY
 CN 2-Oxetanecarboxylic acid, 4-oxo-, 2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl
 ester, polymer with phenylmethyl 4-oxo-2-oxetanecarboxylate (9CI) (CA-
 INDEX NAME)
 MF (C11 H10 O4 . C10 H12 O6)x
 CI PMS
 PCT Polyacrylic, Polyester, Polyester formed
 SR CA
 LC STN Files: CA, CAPLUS, TOXCENTER

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CRN 404567-92-6

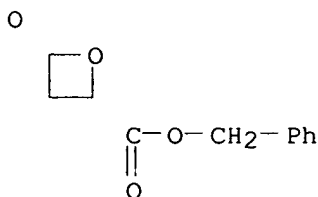
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CM 2

CRN 76652-44-3

CMF C11 H10 O4



2 REFERENCES IN FILE CA (1907 TO DATE)

2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 137:353339

REFERENCE 2: 136:263566

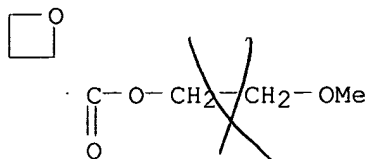
L13 ANSWER 2 OF 26 REGISTRY COPYRIGHT 2004 ACS on STN
 RN 404568-05-4 REGISTRY
 CN 2-Oxetanecarboxylic acid, 4-oxo-, 2-methoxyethyl ester, polymer with
 phenylmethyl 4-oxo-2-oxetanecarboxylate (9CI) (CA INDEX NAME)
 MF (C11 H10 O4 . C7 H10 O5)x
 CI PMS
 PCT Polyester, Polyester formed
 SR CA
 LC STN Files: CA, CAPLUS, TOXCENTER

CM 1

CRN 404567-91-5

CMF C7 H10 O5

O

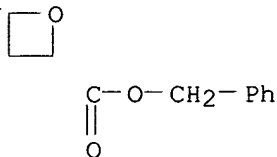


CM 2

CRN 76652-44-3

CMF C11 H10 O4

O



2 REFERENCES IN FILE CA (1907 TO DATE)

2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 137:353339 262

REFERENCE 2: 136:263566

L13 ANSWER 3 OF 26 REGISTRY COPYRIGHT 2004 ACS on STN
 RN 404568-04-3 REGISTRY
 CN Cholest-5-en-3-ol (3.beta.)-, 4-oxo-2-oxetanecarboxylate, polymer with
 phenylmethyl 4-oxo-2-oxetanecarboxylate (9CI) (CA INDEX NAME)
 FS STEREOSEARCH
 MF (C31 H48 O4 . C11 H10 O4)x
 CI PMS
 PCT Polyester, Polyester formed
 SR CA

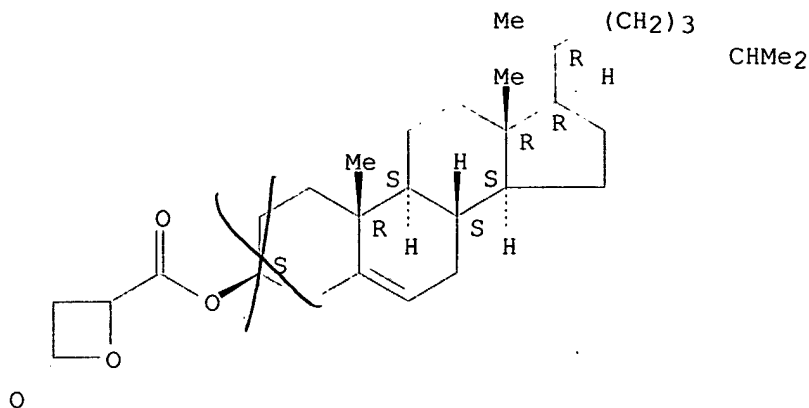
LC STN Files: CA, CAPLUS, TOXCENTER

CM 1

CRN 404567-90-4

CMF C31 H48 O4

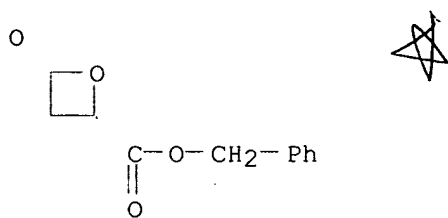
Absolute stereochemistry.



CM 2

CRN 76652-44-3

CMF C11 H10 O4



2 REFERENCES IN FILE CA (1907 TO DATE)
2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 137:353339

REFERENCE 2: 136:263566

L13 ANSWER 4 OF 26 REGISTRY COPYRIGHT 2004 ACS on STN

RN 404568-03-2 REGISTRY

CN 2-Oxetanecarboxylic acid, 4-oxo-, 3-methyl-2-butenyl ester, polymer with phenylmethyl 4-oxo-2-oxetanecarboxylate (9CI) (CA INDEX NAME)

MF (C11 H10 O4 . C9 H12 O4)x

CI PMS

PCT Polyester, Polyester formed, Polyvinyl

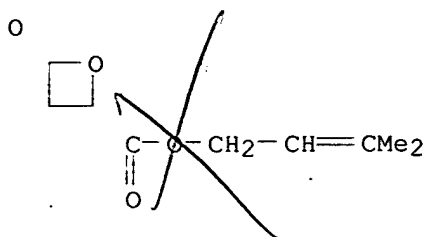
SR CA

LC STN Files: CA, CAPLUS, TOXCENTER

CM 1

CRN 404567-84-6

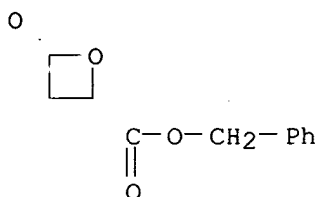
CMF C9 H12 O4



CM 2

CRN 76652-44-3

CMF C11 H10 O4



2 REFERENCES IN FILE CA (1907 TO DATE)

2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 137:353339

REFERENCE 2: 136:263566

L13 ANSWER 5 OF 26 REGISTRY COPYRIGHT 2004 ACS on STN

RN 327614-59-5 REGISTRY

CN 2-Oxetanecarboxylic acid, 4-oxo-, polymer with neoheptyl
4-oxo-2-oxetanecarboxylate (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN 2-Oxetanecarboxylic acid, 4-oxo-, neoheptyl ester, polymer with
4-oxo-2-oxetanecarboxylic acid (9CI)

MF (C10 H16 O4 . C4 H4 O4)x

CI PMS

PCT Polyester, Polyester formed

SR CA

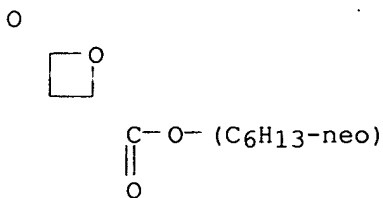
LC STN Files: CA, CAPLUS

CM 1

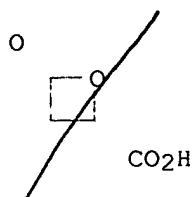
CRN 327614-57-3

CMF C10 H16 O4

CCI IDS



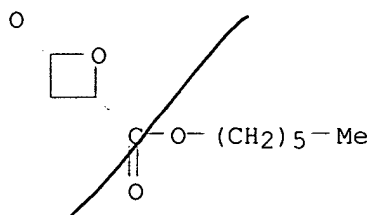
CM 2

CRN 90730-97-5
CMF C4 H4 O41 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

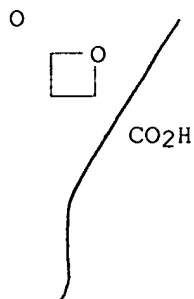
REFERENCE 1: 134:197932 (700)

L13 ANSWER 6 OF 26 REGISTRY COPYRIGHT 2004 ACS on STN
 RN 327604-90-0 REGISTRY
 CN 2-Oxetanecarboxylic acid, 4-oxo-, polymer with hexyl 4-oxo-2-oxetanecarboxylate (9CI) (CA INDEX NAME)
 OTHER CA INDEX NAMES:
 CN 2-Oxetanecarboxylic acid, 4-oxo-, hexyl ester, polymer with 4-oxo-2-oxetanecarboxylic acid (9CI)
 MF (C10 H16 O4 . C4 H4 O4)x
 CI PMS
 PCT Polyester, Polyester formed
 SR CA
 LC STN Files: CA, CAPLUS

CM 1

CRN 327604-80-8
CMF C10 H16 O4

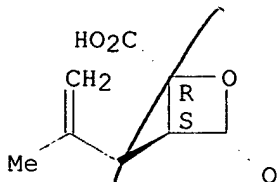
CM 2

CRN 90730-97-5
CMF C4 H4 O41 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 134:197932 (2000)

L13 ANSWER 7 OF 26 REGISTRY COPYRIGHT 2004 ACS on STN
 RN 284484-29-3 REGISTRY
 CN 2-Oxetanecarboxylic acid, 3-(2-methyl-2-propenyl)-4-oxo-, (2R,3S)- (9CI)
 (CA INDEX NAME)
 FS STEREOSEARCH
 MF C8 H10 O4
 SR CA
 LC STN Files: CA, CAPLUS, TOXCENTER

Absolute stereochemistry.



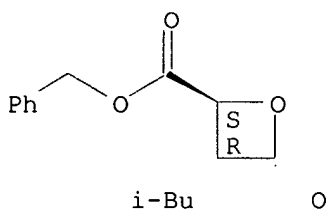
PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
 1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 133:120677 (2000)

L13 ANSWER 8 OF 26 REGISTRY COPYRIGHT 2004 ACS on STN
 RN 284484-28-2 REGISTRY
 CN 2-Oxetanecarboxylic acid, 3-(2-methylpropyl)-4-oxo-, phenylmethyl ester,
 (2S,3R)- (9CI) (CA INDEX NAME)
 FS STEREOSEARCH
 MF C15 H18 O4
 SR CA
 LC STN Files: CA, CAPLUS, TOXCENTER

Absolute stereochemistry.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

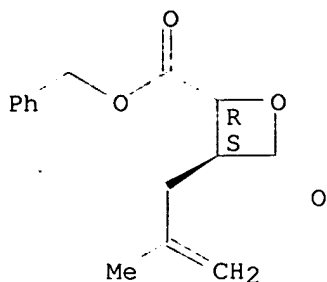
1 REFERENCES IN FILE CA (1907 TO DATE)
 1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 133:120677 (2000)

L13 ANSWER 9 OF 26 REGISTRY COPYRIGHT 2004 ACS on STN
 RN 284484-25-9 REGISTRY
 CN 2-Oxetanecarboxylic acid, 3-(2-methyl-2-propenyl)-4-oxo-, phenylmethyl
 ester, (2R,3S)- (9CI) (CA INDEX NAME)
 FS STEREOSEARCH

MF C15 H16 O4
 SR CA
 LC STN Files: CA, CAPLUS, TOXCENTER

Absolute stereochemistry.



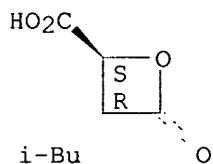
PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
 1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 133:120677

L13 ANSWER 10 OF 26 REGISTRY COPYRIGHT 2004 ACS on STN
 RN 284484-01-1 REGISTRY
 CN 2-Oxetanecarboxylic acid, 3-(2-methylpropyl)-4-oxo-, (2S,3R)- (9CI) (CA
 INDEX NAME)
 FS STEREOSEARCH
 MF C8 H12 O4
 SR CA
 LC STN Files: CA, CAPLUS, TOXCENTER

Absolute stereochemistry.



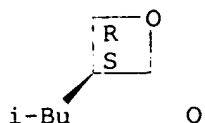
PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
 1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 133:120677

L13 ANSWER 11 OF 26 REGISTRY COPYRIGHT 2004 ACS on STN
 RN 284484-00-0 REGISTRY
 CN 2-Oxetanecarboxylic acid, 3-(2-methylpropyl)-4-oxo-, (2R,3S)- (9CI) (CA
 INDEX NAME)
 FS STEREOSEARCH
 MF C8 H12 O4
 SR CA
 LC STN Files: CA, CAPLUS, TOXCENTER

Absolute stereochemistry.

HO₂C

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
 1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 133:120677

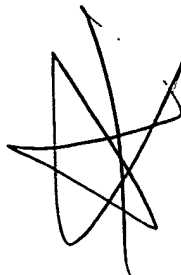
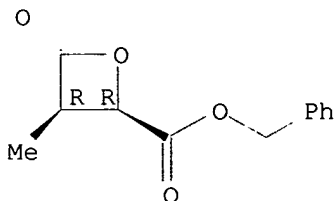
L13 ANSWER 12 OF 26 REGISTRY COPYRIGHT 2004 ACS on STN
 RN 216576-95-3 REGISTRY
 CN 2-Oxetanecarboxylic acid, 3-methyl-4-oxo-, phenylmethyl ester, (2R-cis)-, homopolymer (9CI) (CA INDEX NAME)
 FS STEREOSEARCH
 MF (C12 H12 O4)x
 CI PMS
 PCT Polyester, Polyester formed
 SR CA
 LC STN Files: CA, CAPLUS

RELATED POLYMERS AVAILABLE WITH POLYLINK

CM 1

CRN 197010-19-8
 CMF C12 H12 O4

Absolute stereochemistry. Rotation (+).

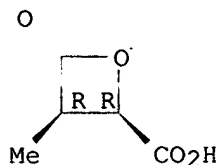


1 REFERENCES IN FILE CA (1907 TO DATE)
 1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 130:38756

L13 ANSWER 13 OF 26 REGISTRY COPYRIGHT 2004 ACS on STN
 RN 216576-94-2 REGISTRY
 CN 2-Oxetanecarboxylic acid, 3-methyl-4-oxo-, (2R,3R)- (9CI) (CA INDEX NAME)
 FS STEREOSEARCH
 MF C5 H6 O4
 SR CA
 LC STN Files: CA, CAPLUS

Absolute stereochemistry.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 130:38756

L13 ANSWER 14 OF 26 REGISTRY COPYRIGHT 2004 ACS on STN

RN 197010-19-8 REGISTRY

CN 2-Oxetanecarboxylic acid, 3-methyl-4-oxo-, phenylmethyl ester, (2R,3R)-
(9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN 2-Oxetanecarboxylic acid, 3-methyl-4-oxo-, phenylmethyl ester, (2R-cis)-

FS STEREOSEARCH

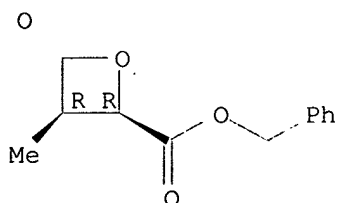
MF C12 H12 O4

CI COM

SR CA

LC STN Files: CA, CAPLUS, TOXCENTER

Absolute stereochemistry. Rotation (+).



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

4 REFERENCES IN FILE CA (1907 TO DATE)
4 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 133:17901

REFERENCE 2: 131:341858

REFERENCE 3: 130:38756

REFERENCE 4: 127:293731

L13 ANSWER 15 OF 26 REGISTRY COPYRIGHT 2004 ACS on STN

RN 191938-08-6 REGISTRY

CN 2-Oxetanecarboxylic acid, 4-oxo-, phenylmethyl ester, polymer with
2-tricyclo[3.3.1.1.3,7]dec-1-ylethyl 4-oxo-2-oxetanecarboxylate (9CI) (CA
INDEX NAME)

OTHER CA INDEX NAMES:

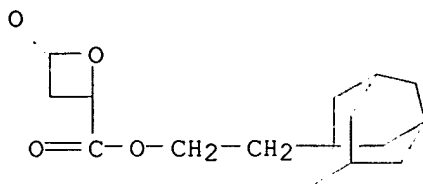
CN 2-Oxetanecarboxylic acid, 4-oxo-, 2-tricyclo[3.3.1.1.3,7]dec-1-ylethyl
ester, polymer with phenylmethyl 4-oxo-2-oxetanecarboxylate (9CI)

OTHER NAMES:

CN Benzyl malolactonate-ethyladamantyl malolactonate copolymer
 MF (C16 H22 O4 . C11 H10 O4)x
 CI PMS
 PCT Polyester, Polyester formed
 SR CA
 LC STN Files: CA, CAPLUS

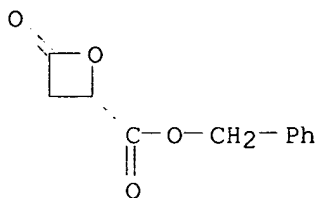
CM 1

CRN 191938-04-2
 CMF C16 H22 O4



CM 2

CRN 76652-44-3
 CMF C11 H10 O4



4 REFERENCES IN FILE CA (1907 TO DATE)
 4 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
 4 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 135:153453

REFERENCE 2: 132:208383

REFERENCE 3: 129:4944

REFERENCE 4: 127:81855

L13 ANSWER 16 OF 26 REGISTRY COPYRIGHT 2004 ACS on STN

RN 182230-36-0 REGISTRY

CN 2-Oxetanecarboxylic acid, 4-oxo-, 3-methyl-3-butenyl ester, polymer with phenylmethyl 4-oxo-2-oxetanecarboxylate (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN 2-Oxetanecarboxylic acid, 4-oxo-, phenylmethyl ester, polymer with 3-methyl-3-butenyl 4-oxo-2-oxetanecarboxylate (9CI)

MF (C11 H10 O4 . C9 H12 O4)x

CI PMS

PCT Polyester, Polyester formed, Polyvinyl

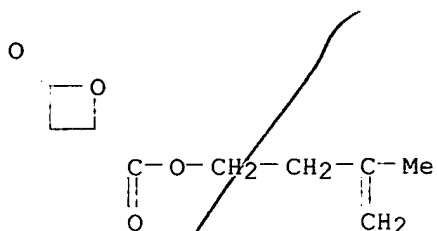
SR CA

LC STN Files: CA, CAPLUS, TOXCENTER

CM 1

CRN 182230-27-9

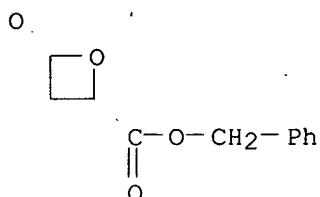
CMF C9 H12 O4



CM 2

CRN 76652-44-3

CMF C11 H10 O4



3 REFERENCES IN FILE CA (1907 TO DATE)
 1 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
 3 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 137:353339

REFERENCE 2: 136:263566

REFERENCE 3: 125:249178

L13 ANSWER 17 OF 26 REGISTRY COPYRIGHT 2004 ACS on STN

RN 177019-47-5 REGISTRY

CN 2-Oxetanecarboxylic acid, 4-oxo-, (2R)- (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN 2-Oxetanecarboxylic acid, 4-oxo-, (R)-

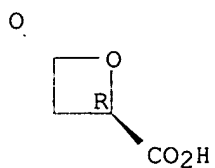
FS STEREOSEARCH

MF C4 H4 O4

SR CA

LC STN Files: CA, CAPLUS, TOXCENTER

Absolute stereochemistry. Rotation (+).



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

2 REFERENCES IN FILE CA (1907 TO DATE)
2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 133:120677

REFERENCE 2: 124:344800

L13 ANSWER 18 OF 26 REGISTRY COPYRIGHT 2004 ACS on STN

RN 176903-12-1 REGISTRY

CN 2-Oxetanecarboxylic acid, 4-oxo-, 2-[(dichloroacetyl)amino]-3-hydroxy-3-(4-nitrophenyl)propyl ester, polymer with phenylmethyl 4-oxo-2-oxetanecarboxylate (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN 2-Oxetanecarboxylic acid, 4-oxo-, phenylmethyl ester, polymer with 2-[(dichloroacetyl)amino]-3-hydroxy-3-(4-nitrophenyl)propyl 4-oxo-2-oxetanecarboxylate (9CI)

MF (C15 H14 Cl2 N2 O8 . C11 H10 O4)x

CI PMS

PCT Polyester, Polyester formed

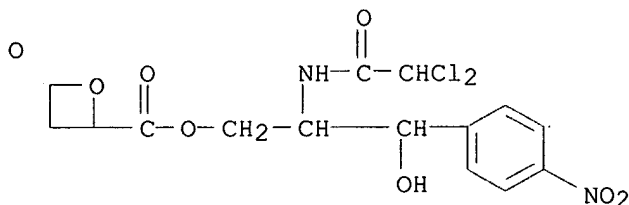
SR CA

LC STN Files: CA, CAPLUS

CM 1

CRN 176903-11-0

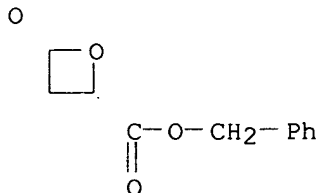
CMF C15 H14 Cl2 N2 O8



CM 2

CRN 76652-44-3

CMF C11 H10 O4



1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 124:344800

L13 ANSWER 19 OF 26 REGISTRY COPYRIGHT 2004 ACS on STN

RN 176903-10-9 REGISTRY

CN 2-Oxetanecarboxylic acid, 4-oxo-, phenylmethyl ester, polymer with

2,4,5-trichlorophenyl 4-oxo-2-oxetanecarboxylate (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN 2-Oxetanecarboxylic acid, 4-oxo-, 2,4,5-trichlorophenyl ester, polymer with phenylmethyl 4-oxo-2-oxetanecarboxylate (9CI)

MF (C11 H10 O4 . C10 H5 Cl3 O4)x

CI PMS

PCT Polyester, Polyester formed

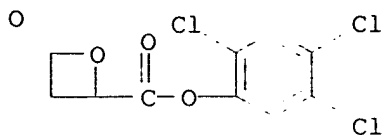
SR CA

LC STN Files: CA, CAPLUS

CM 1

CRN 176903-09-6

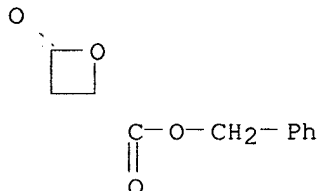
CMF C10 H5 Cl3 O4



CM 2

CRN 76652-44-3

CMF C11 H10 O4



1 REFERENCES IN FILE CA (1907 TO DATE)

1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 124:344800

L13 ANSWER 20 OF 26 REGISTRY COPYRIGHT 2004 ACS on STN

RN 137257-54-6 REGISTRY

CN 2-Oxetanecarboxylic acid, 4-oxo-, phenylmethyl ester, (R)-, polymer with (S)-phenylmethyl 4-oxo-2-oxetanecarboxylate (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN 2-Oxetanecarboxylic acid, 4-oxo-, phenylmethyl ester, (S)-, polymer with (R)-phenylmethyl 4-oxo-2-oxetanecarboxylate (9CI)

FS STEREOSEARCH

MF (C11 H10 O4 . C11 H10 O4)x

CI PMS

PCT Polyester, Polyester formed

SR CA

LC STN Files: CA, CAPLUS

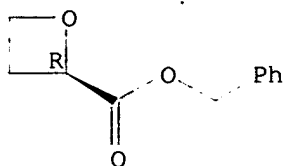
CM 1

CRN 99494-21-0

CMF C11 H10 O4

Absolute stereochemistry.

O



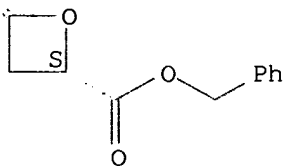
CM 2

CRN 88904-00-1

CMF C11 H10 O4

Absolute stereochemistry.

O



1 REFERENCES IN FILE CA (1907 TO DATE)

1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 116:21770

L13 ANSWER 21 OF 26 REGISTRY COPYRIGHT 2004 ACS on STN

RN 99494-21-0 REGISTRY

CN 2-Oxetanecarboxylic acid, 4-oxo-, phenylmethyl ester, (R)- (9CI) (CA INDEX NAME)

OTHER NAMES:

CN Benzyl (R)-malolactonate

FS STEREOSEARCH

MF C11 H10 O4

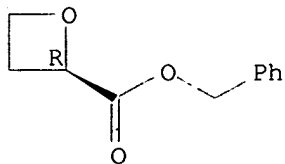
CI COM

SR CA

LC STN Files: CA, CAPLUS, CASREACT, CHEMINFORMRX

Absolute stereochemistry.

O



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

5 REFERENCES IN FILE CA (1907 TO DATE)

5 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 124:344800

REFERENCE 2: 120:163839

REFERENCE 3: 106:120326

REFERENCE 4: 106:120242

REFERENCE 5: 104:6283

L13 ANSWER 22 OF 26 REGISTRY COPYRIGHT 2004 ACS on STN

RN 97332-00-8 REGISTRY

CN 2-Oxetanecarboxylic acid, 4-oxo-, homopolymer (9CI) (CA INDEX NAME)

DR 137257-53-5

MF (C4 H4 O4)x

CI PMS

PCT Polyester, Polyester formed

SR CA

LC STN Files: CA, CAPLUS

RELATED POLYMERS AVAILABLE WITH POLYLINK

CM 1

CRN 90730-97-5

CMF C4 H4 O4

O

CO₂H

2 REFERENCES IN FILE CA (1907 TO DATE)

1 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA

2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 116:21770

REFERENCE 2: 103:37799

L13 ANSWER 23 OF 26 REGISTRY COPYRIGHT 2004 ACS on STN

RN 90730-97-5 REGISTRY

CN 2-Oxetanecarboxylic acid, 4-oxo- (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN Malic acid, .beta.-lactone (6CI)

OTHER NAMES:

CN 4-Oxo-2-oxetanecarboxylic acid

CN Malolactonic acid

FS 3D CONCORD

DR 137257-52-4

MF C4 H4 O4

CI COM

LC STN Files: BEILSTEIN*, CA, CAOLD, CAPLUS, TOXCENTER

(*File contains numerically searchable property data)

O

CO₂H

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

7 REFERENCES IN FILE CA (1907 TO DATE)
 3 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
 7 REFERENCES IN FILE CAPLUS (1907 TO DATE)
 1 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

REFERENCE 1: 137:353339

REFERENCE 2: 133:182803

REFERENCE 3: 132:322157

REFERENCE 4: 127:81855

REFERENCE 5: 124:344800

REFERENCE 6: 123:170439

REFERENCE 7: 54:37583

L13 ANSWER 24 OF 26 REGISTRY COPYRIGHT 2004 ACS on STN

RN 88928-81-8 REGISTRY

CN 2-Oxetanecarboxylic acid, 4-oxo-, phenylmethyl ester, (S)-, homopolymer
 (9CI) (CA INDEX NAME)

FS STEREOSEARCH

MF (C11 H10 O4)x

CI PMS

PCT Polyester, Polyester formed

LC STN Files: CA, CAPLUS

RELATED POLYMERS AVAILABLE WITH POLYLINK

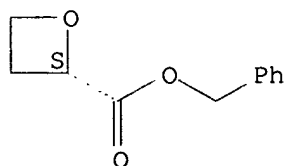
CM 1

CRN 88904-00-1

CMF C11 H10 O4

Absolute stereochemistry.

O



3 REFERENCES IN FILE CA (1907 TO DATE)
 1 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
 3 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 116:21770

REFERENCE 2: 106:120242

REFERENCE 3: 100:91272

L13 ANSWER 25 OF 26 REGISTRY COPYRIGHT 2004 ACS on STN

RN 76653-40-2 REGISTRY

CN 2-Oxetanecarboxylic acid, 4-oxo-, phenylmethyl ester, homopolymer (9CI)
(CA INDEX NAME)

OTHER NAMES:

CN (R,S)-Benzyl malolactate homopolymer

CN Benzyl .beta.-malolactonate homopolymer

CN Benzyl malolactone homopolymer

CN Benzyl-.beta.-D,L-malolactonate homopolymer

CN Poly(4-benzyloxycarbonyl-2-oxetanone)

CN Poly(benzyl malolactonate)

DR 129868-82-2, 88849-68-7

MF (C11 H10 O4)x

CI PMS

PCT Polyester, Polyester formed

LC STN Files: CA, CAPLUS, TOXCENTER, USPATFULL

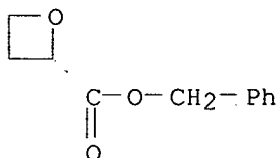
RELATED POLYMERS AVAILABLE WITH POLYLINK

CM 1

CRN 76652-44-3

CMF C11 H10 O4

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29 REFERENCES IN FILE CA (1907 TO DATE)

8 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA

29 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 139:351035

REFERENCE 2: 138:137702

REFERENCE 3: 137:353339

REFERENCE 4: 136:263566

REFERENCE 5: 134:197932

REFERENCE 6: 132:251523

REFERENCE 7: 131:286898

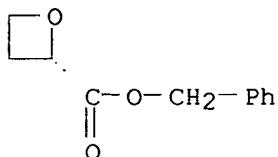
REFERENCE 8: 130:312192

REFERENCE 9: 129:4944

REFERENCE 10: 128:308870

L13 ANSWER 26 OF 26 REGISTRY COPYRIGHT 2004 ACS on STN
 RN 76652-44-3 REGISTRY
 CN 2-Oxetanecarboxylic acid, 4-oxo-, phenylmethyl ester (9CI) (CA INDEX NAME)
 OTHER NAMES:
 CN Benzyl .beta.-malolactonate
 CN Benzyl 2-oxetanone-4-carboxylate
 CN Benzyl malolactonate
 CN Benzyl-.beta.-D,L-malolactonate
 FS 3D CONCORD
 DR 129868-81-1, 88849-67-6
 MF C11 H10 O4
 CI COM
 LC STN Files: CA, CAPLUS, CHEMINFORMRX, TOXCENTER, USPATFULL

O



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

20 REFERENCES IN FILE CA (1907 TO DATE)
 2 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
 20 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 138:288060
 REFERENCE 2: 137:353339
 REFERENCE 3: 133:63846
 REFERENCE 4: 132:137864
 REFERENCE 5: 131:356030
 REFERENCE 6: 130:312192
 REFERENCE 7: 128:308870
 REFERENCE 8: 128:196596
 REFERENCE 9: 128:116529
 REFERENCE 10: 128:114044

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FILE COVERS 1907 - 28 Jan 2004 VOL 140 ISS 5
FILE LAST UPDATED: 27 Jan 2004 (20040127/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

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=> d stat que l16 nos
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L5          75 SEA FILE=REGISTRY SSS FUL L3
L7          STR
L8          23 SEA FILE=REGISTRY SUB=L5 SSS FUL L7
L9          52 SEA FILE=REGISTRY ABB=ON PLU=ON L5 NOT L8
L10         19 SEA FILE=HCAPLUS ABB=ON PLU=ON L8
L11         67 SEA FILE=HCAPLUS ABB=ON PLU=ON L9
L12         8 SEA FILE=HCAPLUS ABB=ON PLU=ON L10 AND L11
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L16         10 SEA FILE=HCAPLUS ABB=ON PLU=ON L14 NOT L12
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L16 ANSWER 1 OF 10 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2001:139459 HCAPLUS
DOCUMENT NUMBER: 135:5286
TITLE: Evidence for .alpha.-lactone intermediates in addition
of aqueous bromine to disodium dimethyl-maleate and
-fumarate
AUTHOR(S): Robinson, James J.; Buchanan, J. Grant; Kinsman,
Richard G.; Mahon, Mary F.; Williams, Ian H.;
Charlton, Michael H.
CORPORATE SOURCE: Department of Chemistry, University of Bath, Bath, BA2
7AY, UK
SOURCE: Chemical Communications (Cambridge, United Kingdom) (
2001), (5), 485-486
CODEN: CHCOFS; ISSN: 1359-7345
PUBLISHER: Royal Society of Chemistry
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Crystallog. anal. of the bromo-.beta.-lactones obtained by addn. of
bromine to aq. solns. of disodium 2,3-dimethylmaleate and
2,3-dimethylfumarate reveals stereochemistries opposite to those
originally assigned and suggests that the first-formed intermediate in
each case is an .alpha.-lactone.
IT 340829-88-1 340829-89-2
RL: FMU (Formation, unclassified); PRP (Properties); FORM (Formation,
nonpreparative)
(correction of literature assignment; evidence for .alpha.-lactone
intermediates in addn. of aq. bromine to disodium dimethylmaleate and
-fumarate)
REFERENCE COUNT: 38 THERE ARE 38 CITED REFERENCES AVAILABLE FOR THIS
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RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 2 OF 10 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2000:419441 HCAPLUS

DOCUMENT NUMBER: 133:182803

TITLE: Design of malolactonic acid esters with a large spectrum of specified pendant groups in the engineering of biofunctional and hydrolyzable polyesters

AUTHOR(S): Cammas-Marion, Sandrine; Guerin, Philippe

CORPORATE SOURCE: Laboratoire de Recherche sur les Polymeres, Thiais, 94320, Fr.

SOURCE: Macromolecular Symposia (2000), 153(Recent Advances in Ring Opening (Metathesis) Polymerization), 167-186

CODEN: MSYMEC; ISSN: 1022-1360

PUBLISHER: Wiley-VCH Verlag GmbH

DOCUMENT TYPE: Journal; General Review

LANGUAGE: English

AB A review with 26 refs. The development of multimeric functionalized macromols. with the strict adjustment of their structure and their properties, aimed at biol. applications, leads to complex architecture and puts on the diversification of hydrolyzable polymers. Poly(.beta.-malic acid) derivs. are very good candidates in the prepn. of smart mols. for a large spectrum of applications in the release of bioactive mols., due to the presence of a lateral carboxylic acid function besides stereogenic centers in the repeating units and main chain cleavable bonds. The opportunity for accessing to these structures comes from mastery of the corresponding functionalized .beta.-substituted .beta.-lactones synthesis. Two different synthesis routes have been established and the functional pendant groups is attached at the step preceding the lactone formation. A third way consists in the synthesis of malolactonic acid which is reacted with a specific mol. in presence of a coupling reagent. It is therefore possible to dispose of an important wealth of monomers and to tailor-make polymeric materials having a well-defined compn. Multimeric structures have been elaborated aimed at degradable micelles from block copolymers, nanoparticles starting from hydrophobic polyesters, biomimetic architecture for interacting with fibroblast growth factors and amphiphilic assocg. polymers for hydrogel networks. Biodegradable graft copolymers have been elaborated for bioactive mols. encapsulation and bioartificial membranes, including cholesterol and diacylglycerol, have been tailor-made.

IT 90730-97-5DP, Malolactonic acid, polymers

RL: PRP (Properties); SPN (Synthetic preparation); THU (Therapeutic use);

BIOL (Biological study); PREP (Preparation); USES (Uses)

(design of malolactonic acid esters with a large spectrum of specified pendant groups in the engineering of biofunctional and hydrolyzable polyesters)

REFERENCE COUNT: 26 THERE ARE 26 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 3 OF 10 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2000:201732 HCAPLUS

DOCUMENT NUMBER: 132:322157

TITLE: 4-Alkyloxycarbonyl-2-oxetanones and 3-alkyl-4-alkyloxycarbonyl-2-oxetanones as versatile chiral precursors in the design of functionalized polyesters with a controlled architecture

AUTHOR(S): Cammas-Marion, Sandrine; Guerin, Philippe

CORPORATE SOURCE: Laboratoire de Recherche sur les Polymeres, UMR C7581 CNRS, Universite Paris XII Val de Marne, Thiais, 94320, Fr.

SOURCE: Designed Monomers and Polymers (2000), 3(1),

77-93

CODEN: DMPOF3; ISSN: 1385-772X

PUBLISHER:

VSP BV

DOCUMENT TYPE:

Journal; General Review

LANGUAGE:

English

AB The necessity for accessing a very large variety of high-mol.-wt. racemic and optically active polyesters aimed at biomedical or chem. applications has led to the growth of a large series of racemic and optically active 4-alkoxycarbonyl-2-oxetanones and 3-alkyl-4-alkoxycarbonyl-2-oxetanones. Different synthesis routes established by the authors to prep. these monomers according to the bound ester group structure and the required enantiomeric or diastereomeric excess are reviewed with 32 refs. The major interest in this enlarged monomer family lies in the possibility of having at one's disposal .beta.-substituted .beta.-lactones with very strict control of the stereogenic center configuration.

IT 90730-97-5DP, 4-Oxo-2-oxetanecarboxylic acid, alkyl esters

RL: SPN (Synthetic preparation); PREP (Preparation)

(chiral precursors in design of functionalized polyesters with controlled architecture)

REFERENCE COUNT: 32 THERE ARE 32 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 4 OF 10 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1995:996640 HCAPLUS

DOCUMENT NUMBER: 124:37707

TITLE: Liquid delivery compositions

INVENTOR(S): Yewey, Gerald L.; Krinick, Nancy L.; Dunn, Richard L.; Radomsky, Michael L.; Brouwer, Gerbrand; Tipton, Arthur J.

PATENT ASSIGNEE(S): Atrix Laboratories, Inc., USA

SOURCE: PCT Int. Appl., 51 pp.

CODEN: PIXXD2

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9527481	A1	19951019	WO 1995-US3792	19950327 <--
W:	AM, AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LT, LU, LV, MD, MG, MN, MW, MX, NL, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM			
RW:	KE, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG			
CA 2187353	AA	19951019	CA 1995-2187353	19950327 <--
AU 9521294	A1	19951030	AU 1995-21294	19950327 <--
AU 684931	B2	19980108		
EP 754032	A1	19970122	EP 1995-914202	19950327 <--
EP 754032	B1	20011205		
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE			
BR 9507313	A	19971007	BR 1995-7313	19950327 <--
JP 09511741	T2	19971125	JP 1995-526358	19950327 <--
EP 1125577	A2	20010822	EP 2001-111735	19950327
EP 1125577	A3	20030108		
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE			
AT 209907	E	20011215	AT 1995-914202	19950327
PT 754032	T	20020531	PT 1995-95914202	19950327
ES 2171186	T3	20020901	ES 1995-914202	19950327
US 5759563	A	19980602	US 1995-486262	19950607 <--
US 5780044	A	19980714	US 1996-761015	19961205 <--

US 5744153 A 19980428 US 1997-871492 19970609 <--
 PRIORITY APPLN. INFO.: US 1994-225140 A 19940408
 EP 1995-914202 A3 19950327
 WO 1995-US3792 W 19950327
 US 1995-487979 B1 19950607

AB Improved biocompatible liq. delivery compns., which are useful for the formation of sustained release delivery systems for active agents, are provided. The compns. include liq. formulations of a biocompatible polymer or prepolymer in combination with a controlled release component. The controlled release component includes an active agent. These compns. may be introduced into the body of a subject in liq. form which then solidify or cure in situ to form a controlled release implant or a film dressing. The liq. delivery compns. may also be employed ex situ to produce a controlled release implant. Methods of forming a controlled release implant and employing the liq. formulations in the treatment of a subject are also provided.

IT 171866-63-0

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (liq. controlled release drug delivery systems)

L16 ANSWER 5 OF 10 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1995:649881 HCAPLUS

DOCUMENT NUMBER: 123:170439

TITLE: Tailor-making of multimeric poly(.beta.-malic acid) derivatives: Property adjustment through ester pendant groups

AUTHOR(S): Cammas, S.; Leboucher, M. A.; Renard, I.; Boutault, K.; Guerin, Ph.

CORPORATE SOURCE: URA CNRS 1467, Ecole Nationale Supérieure de Chimie de Rennes, Rennes, 35700, Fr.

SOURCE: Studies in Polymer Science (1994),
 12(Biodegradable Plastics and Polymers), 534-40
 CODEN: SPLSEA; ISSN: 0922-5579

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Biodegradable high mol. wt. polymers and copolymers were prepd. using various ester derivs. of .beta.-malolactone.

IT 90730-97-5DP, Malic acid .beta.-lactone, esters, polymers

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
 (prepn. of biodegradable polymalolactonates)

L16 ANSWER 6 OF 10 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1995:320149 HCAPLUS

DOCUMENT NUMBER: 123:198258

TITLE: Synthesis of Novel Thiol-Containing Citric Acid Analogs. Kinetic Evaluation of These and Other Potential Active-Site-Directed and Mechanism-Based Inhibitors of ATP Citrate Lyase

AUTHOR(S): Dolle, Roland E.; Gribble, Andy; Wilkes, Tracey; Kruse, Lawrence I.; Eggleston, Drake; Saxty, Barbara A.; Wells, Timothy N. C.; Groot, Pieter H. E.

CORPORATE SOURCE: Departments of Medicinal Chemistry and Cellular Pharmacology, SmithKline Beecham Pharmaceuticals Ltd., Welwyn/Welwyn, AL6 9AR, UK

SOURCE: Journal of Medicinal Chemistry (1995),
 38(3), 537-43

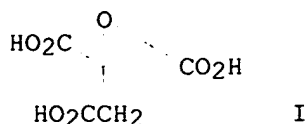
CODEN: JMCMAR; ISSN: 0022-2623

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal

LANGUAGE: English

GI



AB ATP citrate lyase is an enzyme involved in mammalian lipogenesis and cholesterologenesis. Inhibitors of the enzyme represent a potentially novel class of hypolipidemic agents. Citric acid analogs, e.g. I, (.+-.)-HO₂CCH₂C(OH)C(CO₂H)CHClCO₂H, bearing electrophilic and latent electrophilic substituents were synthesized and evaluated as irreversible inhibitors of ATP citrate lyase. The design of these agents was based on the classical enzymic mechanism where an active-site nucleophile (thiol) was believed to be critically involved in catalysis. Reversible inhibition (K_i's ranging from ca. 20 to 500 .mu.M) was obsd. for some of these compds. Some of the compds., e.g. I, had no appreciable affinity for the enzyme (K_i > 1 mM). Time-dependent inactivation of the enzyme was not detected following long incubation times (>1 h, 37 .degree.C) at 2 mM inhibitor concns.

IT 168037-32-9

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)
(synthesis of citric acid analogs as inhibitors of ATP citrate lyase)

L16 ANSWER 7 OF 10 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1986:90089 HCAPLUS
DOCUMENT NUMBER: 104:90089
TITLE: Acrylic adhesives
INVENTOR(S): Takahashi, Shin; Kimura, Kaoru
PATENT ASSIGNEE(S): Toa Gosei Chemical Industry Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 9 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 60199085	A2	19851008	JP 1984-54488	19840323 <--
JP 04055470	B4	19920903		

PRIORITY APPLN. INFO.: JP 1984-54488 19840323

AB Two-component adhesives contain mixts. of polyurethane (meth)acrylates, (meth)acrylic acid or its esters, and peroxy esters, and mixts. contg. accelerators forming redox systems with peroxy esters. Thus, a substrate was coated with a mixt. of 2-hydroxyethyl methacrylate (I)-polyoxypropylene triol-TDI copolymer tartrate 50, I 50, methacrylic acid 10, and tert-BuOOBz 4 parts. Another substrate was coated with a mixt. of 80 parts C₂HCl₃ and 20 parts Nocceler 8 and bonded with the 1st layer to give a laminate with setting time 20 s, tensile shear strength 227 kg/cm², impact strength 32 kg/cm², and peel strength 11 kg/25 mm.

IT 100494-60-8

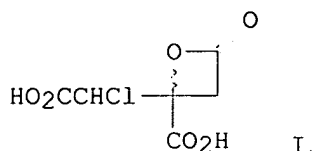
RL: TEM (Technical or engineered material use); USES (Uses)
(adhesives, two-component)

L16 ANSWER 8 OF 10 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1983:438304 HCAPLUS
DOCUMENT NUMBER: 99:38304
TITLE: Chlorocitric acids
INVENTOR(S): Guthrie, Robert W.; Kierstead, Richard W.; Mennona, Francis A.; Sullivan, Ann C.

PATENT ASSIGNEE(S): Hoffmann-La Roche, Inc., USA
 SOURCE: U.S., 23 pp. Cont.-in-part of U.S. 4,312,885.
 CODEN: USXXAM
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 2
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 4365070	A	19821221	US 1981-312041	19811016 <--
US 4312885	A	19820126	US 1978-973504	19781226 <--
ZA 7906685	A	19801126	ZA 1979-6685	19791210 <--
AT 3851	E	19830715	AT 1979-105314	19791221 <--
US 4352758	A	19821005	US 1981-290988	19810807 <--
US 4443619	A	19840417	US 1981-290989	19810807 <--
US 4340754	A	19820720	US 1981-304282	19810921 <--
US 4354039	A	19821012	US 1981-304407	19810921 <--
PRIORITY APPLN. INFO.:			US 1978-973504	19781226
			CH 1979-10580	19791128
			EP 1979-105314	19791221
OTHER SOURCE(S):		CASREACT 99:38304		
GI				



AB Isomeric lactones I were prepd. Thus, tri-Na trans-aconitate was treated with Cl₂ to give (.+.-)-threo-I which was resolved with brucine. At 69 mg/kg orally in rats (+)-threo-I depressed food intake to 35% of controls.

IT **85548-57-8P 85548-58-9P**

RL: SPN (Synthetic preparation); PREP (Preparation)
 (prepn., esterification and appetite depressant activity of)

IT **168037-32-9P**

RL: SPN (Synthetic preparation); PREP (Preparation)
 (prepn., resolu., and appetite depressant activity of)

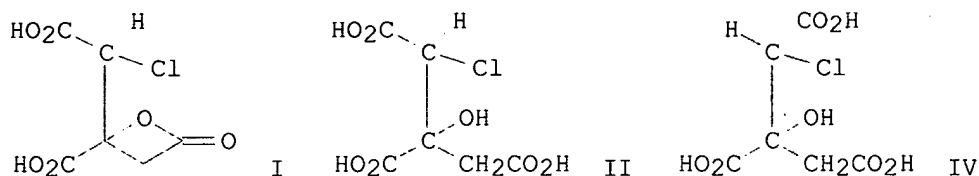
L16 ANSWER 9 OF 10 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1981:83631 HCAPLUS
 DOCUMENT NUMBER: 94:83631
 TITLE: Citric acid derivatives and corresponding threo-.beta.-lactones
 PATENT ASSIGNEE(S): Hoffmann-La Roche, F., und Co. A.-G., USA
 SOURCE: Jpn. Kokai Tokkyo Koho, 14 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 2
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 55089243	A2	19800705	JP 1979-167731	19791225 <--
JP 01010496	B4	19890222		

US 4312885	A	19820126	US 1978-973504	19781226 <--
FI 7903976	A	19800627	FI 1979-3976	19791218 <--
FI 67073	B	19840928		
FI 67073	C	19850110		
AU 7954009	A1	19800703	AU 1979-54009	19791219 <--
AU 527139	B2	19830217		
CA 1138470	A1	19821228	CA 1979-342235	19791219 <--
IL 59015	A1	19831031	IL 1979-59015	19791220 <--
DK 7905540	A	19800627	DK 1979-5540	19791221 <--
DK 154641	B	19881205		
DK 154641	C	19890508		
NO 7904232	A	19800627	NO 1979-4232	19791221 <--
NO 153491	B	19851223		
NO 153491	C	19860402		
EP 16867	A1	19801015	EP 1979-105314	19791221 <--
EP 16867	B1	19830622		
R: AT, BE, CH, DE, FR, GB, IT, LU, NL, SE				
HU 22374	O	19820528	HU 1979-HO2203	19791221 <--
HU 179987	B	19830128		
AT 3851	E	19830715	AT 1979-105314	19791221 <--
ES 487247	A1	19801101	ES 1979-487247	19791224 <--
ES 492727	A1	19810601	ES 1980-492727	19800625 <--
PRIORITY APPLN. INFO.:			US 1978-973504	19781226
			CH 1979-10580	19791128
			EP 1979-105314	19791221

OTHER SOURCE(S): CASREACT 94:83631
GI



AB cis- Or trans-aconitic acid trialkali metal or trialk. earth metal salts were treated with Cl₂ or HOCl to give the salts of (.+.-)-threo-chlorocitric acid .beta.-lactone (I), which were hydrolyzed with acids to give (.+.-)-threo-chlorocitric acid (II); ring cleavage of epoxyaconitic acid (III) by alkali metal chlorides or alk. earth metal chlorides in aq.media in the presence of acids gave (.+.-)-erythro-chlorocitric acid (IV). (+), (-), And (.+.-)-I, II, and IV are antiobesity agents and appetite stimulants. Thus, 58 g trans-aconitic acid and aq. NaOH gave the tri-Na salt, which was chlorinated by Cl₂ at 10-15.degree. to give 41.5 g (.+.-)-I. Hydrolysis of this by HCl 1 h at 70.degree. gave 34 g (.+.-)-II. Epoxidn. of cis-aconitic anhydride by NaOH, 30% H₂O₂ and Na tungstate gave (.+.-)-erythro-III, which was treated with HCl and NaCl 15 min at 75.degree. to give (.+.-)-IV, resoln. of which with (-)-p-O₂NC₆H₄CHMeNH₂ gave (-)- and (+)-IV.

IT 76432-75-2P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and hydrolysis of)

L16 ANSWER 10 OF 10 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1960:37583 HCAPLUS

DOCUMENT NUMBER: 54:37583

ORIGINAL REFERENCE NO.: 54:7345d-f

TITLE: Angular dependence of electron-coupled proton interactions in CH₂ groups

AUTHOR(S): Gutowsky, H. S.; Karplus, Martin; Grant, D. M.
 CORPORATE SOURCE: Univ. of Illinois, Urbana
 SOURCE: Journal of Chemical Physics (1959), 31,
 1278-89
 CODEN: JCPSA6; ISSN: 0021-9606
 DOCUMENT TYPE: Journal
 LANGUAGE: Unavailable

AB Studies are described of the dependence upon HCH angle of the electron-coupled proton-proton interactions in CH₂ groups. In the theoretical treatment a valence-bond approxn. is used which predicts that the coupling constant $A_{gem.HH}$ (I) decreases from 32 to 0 cycles for HCH angles of 100.degree. to 125.degree.. For angles greater than 125.degree., I is predicted to be neg. Good agreement was obtained between theoretical and exptl. coupling consts., obtained from analyses of the proton magnetic resonance spectra of a number of compds. including partially deuteriated species. For the substituted ethylenes, I was found to vary from 3.2 to -1.8 cycles, A_{cisHH} values ranged from 6.9 to 12 cycles, and $A_{transHH}$ from 14.3 to 18.4 cycles. The results indicate that the value of the coupling constant can be used as a measure of the HCH angle.

IT 90730-97-5, Malic acid, .beta.-lactone
 (electron-coupled proton interactions in CH₂ group of, angle and)

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 E27 THROUGH E31 ASSIGNED

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 DICTIONARY FILE UPDATES: 27 JAN 2004 HIGHEST RN 642407-31-6

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<http://www.cas.org/ONLINE/DBSS/registryss.html>

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=> s e27-e31
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 (76652-44-3/RN)
 1 76653-40-2/BI
 (76653-40-2/RN)
 1 250375-83-8/BI

(250375-83-8/RN)
 1 191792-09-3/BI
 (191792-09-3/RN)
 1 211368-81-9/BI
 (211368-81-9/RN)
 L19 5 (76652-44-3/BI OR 76653-40-2/BI OR 250375-83-8/BI OR 191792-09-3/BI OR 211368-81-9/BI)

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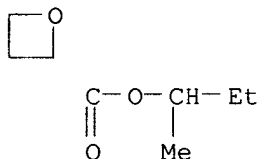
L19 ANSWER 1 OF 5 REGISTRY COPYRIGHT 2004 ACS on STN
 RN 250375-83-8 REGISTRY
 CN 2-Oxetanecarboxylic acid, 4-oxo-, 1-methylpropyl ester, polymer with phenylmethyl 4-oxo-2-oxetanecarboxylate and 2-propenyl 4-oxo-2-oxetanecarboxylate (9CI) (CA INDEX NAME)
 OTHER CA INDEX NAMES:
 CN 2-Oxetanecarboxylic acid, 4-oxo-, 2-propenyl ester, polymer with 1-methylpropyl 4-oxo-2-oxetanecarboxylate and phenylmethyl 4-oxo-2-oxetanecarboxylate (9CI)
 CN 2-Oxetanecarboxylic acid, 4-oxo-, phenylmethyl ester, polymer with 1-methylpropyl 4-oxo-2-oxetanecarboxylate and 2-propenyl 4-oxo-2-oxetanecarboxylate (9CI)
 MF (C11 H10 O4 . C8 H12 O4 . C7 H8 O4)x
 CI PMS
 PCT Polyester, Polyester formed, Polyvinyl
 SR CA
 LC STN Files: CA, CAPLUS, TOXCENTER, USPATFULL

CM 1

CRN 250375-82-7

CMF C8 H12 O4

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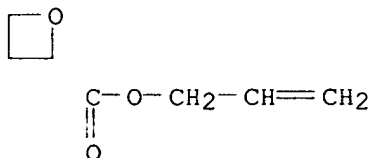


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CRN 182230-28-0

CMF C7 H8 O4

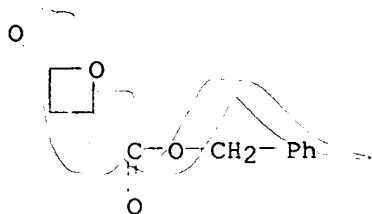
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CM 3

CRN 76652-44-3

CMF C11 H10 O4



4 REFERENCES IN FILE CA (1907 TO DATE)
 4 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
 4 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 137:114460

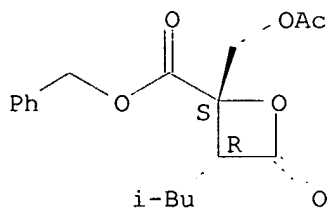
REFERENCE 2: 134:212664

REFERENCE 3: 132:137864

REFERENCE 4: 131:356030

L19 ANSWER 2 OF 5 REGISTRY COPYRIGHT 2004 ACS on STN
 RN 211368-81-9 REGISTRY
 CN 2-Oxetanecarboxylic acid, 2-[(acetyloxy)methyl]-3-(2-methylpropyl)-4-oxo-,
 phenylmethyl ester, (2S,3R)- (9CI) (CA INDEX NAME)
 FS STEREOSEARCH
 MF C18 H22 O6
 SR CA
 LC STN Files: CA, CAPLUS, TOXCENTER, USPATFULL

Absolute stereochemistry.



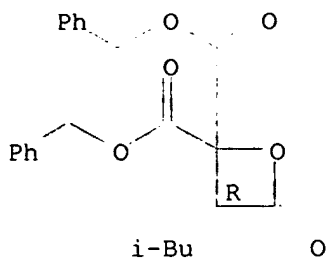
PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
 1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 129:175968

L19 ANSWER 3 OF 5 REGISTRY COPYRIGHT 2004 ACS on STN
 RN 191792-09-3 REGISTRY
 CN 2,2-Oxetanedicarboxylic acid, 3-(2-methylpropyl)-4-oxo-, bis(phenylmethyl)
 ester, (R)- (9CI) (CA INDEX NAME)
 FS STEREOSEARCH
 MF C23 H24 O6
 SR CA
 LC STN Files: CA, CAPLUS, USPATFULL

Absolute stereochemistry.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

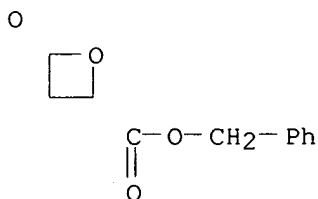
REFERENCE 1: 127:81790

L19 ANSWER 4 OF 5 REGISTRY COPYRIGHT 2004 ACS on STN
RN 76653-40-2 REGISTRY
CN 2-Oxetanecarboxylic acid, 4-oxo-, phenylmethyl ester, homopolymer (9CI)
(CA INDEX NAME)
OTHER NAMES:
CN (R,S)-Benzyl malolactate homopolymer
CN Benzyl .beta.-malolactonate homopolymer
CN Benzyl malolactone homopolymer
CN Benzyl-.beta.-D,L-malolactonate homopolymer
CN Poly(4-benzylloxycarbonyl-2-oxetanone)
CN Poly(benzyl malolactonate)
DR 129868-82-2, 88849-68-7
MF (C11 H10 O4)x
CI PMS
PCT Polyester, Polyester formed
LC STN Files: CA, CAPLUS, TOXCENTER, USPATFULL

RELATED POLYMERS AVAILABLE WITH POLYLINK

CM 1

CRN 76652-44-3
CMF C11 H10 O4



29 REFERENCES IN FILE CA (1907 TO DATE)
8 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
29 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 139:351035

REFERENCE 2: 138:137702

REFERENCE 3: 137:353339

REFERENCE 4: 136:263566
 REFERENCE 5: 134:197932
 REFERENCE 6: 132:251523
 REFERENCE 7: 131:286898
 REFERENCE 8: 130:312192
 REFERENCE 9: 129:4944
 REFERENCE 10: 128:308870

L19 ANSWER 5 OF 5 REGISTRY COPYRIGHT 2004 ACS on STN

RN 76652-44-3 REGISTRY

CN 2-Oxetanecarboxylic acid, 4-oxo-, phenylmethyl ester (9CI) (CA INDEX NAME)

OTHER NAMES:

CN Benzyl .beta.-malolactonate

CN Benzyl 2-oxetanone-4-carboxylate

CN Benzyl malolactonate

CN Benzyl-.beta.-D,L-malolactonate

FS 3D CONCORD

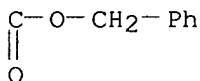
DR 129868-81-1, 88849-67-6

MF C11 H10 O4

CI COM

LC STN Files: CA, CAPLUS, CHEMINFORMRX, TOXCENTER, USPATFULL

O.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

20 REFERENCES IN FILE CA (1907 TO DATE)

2 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA

20 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 138:288060
 REFERENCE 2: 137:353339
 REFERENCE 3: 133:63846
 REFERENCE 4: 132:137864
 REFERENCE 5: 131:356030
 REFERENCE 6: 130:312192
 REFERENCE 7: 128:308870
 REFERENCE 8: 128:196596
 REFERENCE 9: 128:116529

REFERENCE 10: 128:114044

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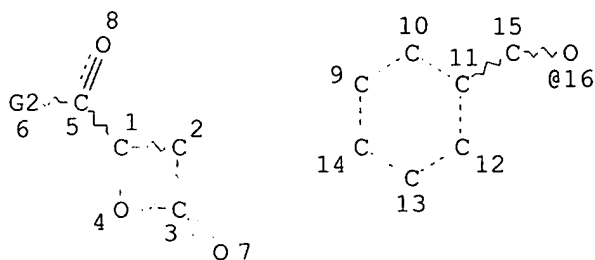
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FILE COVERS 1907 - 28 Jan 2004 VOL 140 ISS 5
 FILE LAST UPDATED: 27 Jan 2004 (20040127/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

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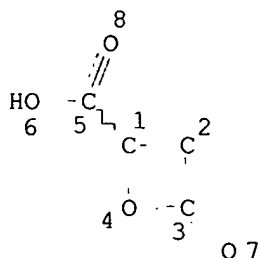
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 L3 STR



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 DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
 RSPEC I
 NUMBER OF NODES IS 16

STEREO ATTRIBUTES: NONE
 L5 75 SEA FILE=REGISTRY SSS FUL L3
 L7 STR



NODE ATTRIBUTES:
 DEFAULT MLEVEL IS ATOM
 DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
 RSPEC I
 NUMBER OF NODES IS 8

STEREO ATTRIBUTES: NONE

L8 23 SEA FILE=REGISTRY SUB=L5 SSS FUL L7
 L9 52 SEA FILE=REGISTRY ABB=ON PLU=ON L5 NOT L8
 L10 19 SEA FILE=HCAPLUS ABB=ON PLU=ON L8
 L11 67 SEA FILE=HCAPLUS ABB=ON PLU=ON L9
 L12 8 SEA FILE=HCAPLUS ABB=ON PLU=ON L10 AND L11
 L15 60 SEA FILE=HCAPLUS ABB=ON PLU=ON L11 AND PD=<JULY 18, 2001
 L17 53 SEA FILE=HCAPLUS ABB=ON PLU=ON L15 NOT L12
 L18 8 SEA FILE=HCAPLUS ABB=ON PLU=ON L17 AND PATENT/DT

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L18 ANSWER 1 OF 8 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2000:84864 HCAPLUS
 DOCUMENT NUMBER: 132:137864
 TITLE: Biocompatible polymers, preparation method and compositions containing same
 INVENTOR(S): Barritault, Denis; Caruelle, Jean-pierre
 PATENT ASSIGNEE(S): Fr.
 SOURCE: PCT Int. Appl., 127 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: French
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000005270	A1	20000203	WO 1999-FR1774	19990720 <--
W:	AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
RW:	GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG			
FR 2781485	A1	20000128	FR 1998-9309	19980721 <--
FR 2781485	B1	20030808		
CA 2337328	AA	20000203	CA 1999-2337328	19990720 <--
AU 9949136	A1	20000214	AU 1999-49136	19990720 <--
EP 1117695	A1	20010725	EP 1999-932921	19990720
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO			
JP 2002521503	T2	20020716	JP 2000-561226	19990720
US 2001021758	A1	20010913	US 2001-765788	20010119
PRIORITY APPLN. INFO.:			FR 1998-9309 A 19980721	
			WO 1999-FR1774 W 19990720	
AB	The invention concerns a biocompatible polymer, useful in pharmaceutical and diagnostic compns., consisting of a sequence of identical or different units: AaXxYy, wherein A represents a monomer unit selected from carbohydrates, esters, alcs., acids, amines, and nucleotides; X represents			

a carboxyl group fixed on A; Y represents a sulfate or sulfonate group fixed on A; a represents the no. of A; x represents the substitution degree by the groups X; y represents the substitution degree by the groups Y. A typical polymer was manufd. by polymn. of benzyl malolactonate 24.2, allyl malolactonate 9.3, and 2-Bu malolactonate in the presence of tetraethylammonium benzoate at 37.degree. under N, epoxidn. of the allyl groups on the product with m-chloroperbenzoic acid, hydrogenation of epoxidn. product to remove the benzyl groups, and sulfonation of epoxide groups of the resulting acidic polymer with Na2S2O5.

IT 250375-83-8DP, epoxidized, hydrolyzed, sulfonated
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); IMF (Industrial manufacture); BIOL (Biological study); PREP (Preparation)
(biocompatible polymers having carboxy and sulfo groups)

IT 76652-44-3P
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(monomer; biocompatible polymers having carboxy and sulfo groups)

IT 250375-83-8P
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(precursor; biocompatible polymers having carboxy and sulfo groups)-

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L18 ANSWER 2 OF 8 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1998:543063 HCAPLUS

DOCUMENT NUMBER: 129:175968

TITLE: Preparation of water-soluble hydroxysuccinate derivatives as matrix metalloproteinase inhibitors

INVENTOR(S): Alpegiani, Marco; Palladino, Massimiliano; Corigli, Riccardo; Jabes, Daniela; Perrone, Ettore; Abrate, Francesca; Bissolino, Pierluigi; Lombroso, Marina

PATENT ASSIGNEE(S): Pharmacia & Upjohn S.p.A., Italy

SOURCE: PCT Int. Appl., 132 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

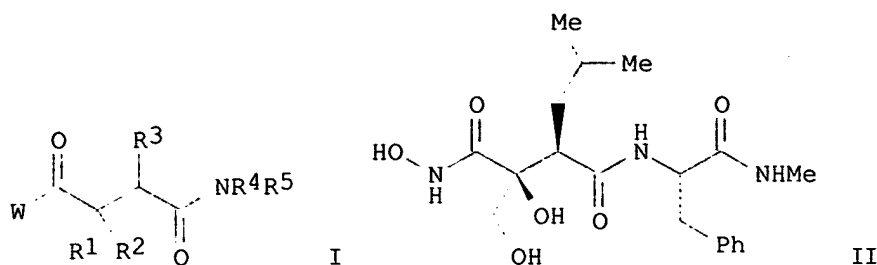
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9833788	A1	19980806	WO 1998-EP531	19980123 <--
W: AU, BR, CA, CN, HU, IL, JP, KR, MX, NO, NZ, PL, UA, US, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
CN 1223636	A	19990721	CN 1997-195888	19970620 <--
AU 9862942	A1	19980825	AU 1998-62942	19980123 <--
EP 960108	A1	19991201	EP 1998-906901	19980123 <--
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, NL, SE, PT, IE, FI				
JP 2001511139	T2	20010807	JP 1998-532543	19980123
US 6194451	B1	20010227	US 1999-355315	19990730 <--
PRIORITY APPLN. INFO.:			GB 1997-2088	A 19970131
			WO 1998-EP531	W 19980123

OTHER SOURCE(S): MARPAT 129:175968

GI



AB A title compds. I [W = NHOH or OH, R1 = (un)protected CH₂OH, CH₂SH, or derivs. thereof; R2 = (un)protected OH; R3, R4 = org. group; R5 = H, Me; NR₄R₅ = azaheterocyclyl], and the solvates, hydrates and pharmaceutically acceptable salts thereof, can inhibit matrix metalloproteinases (MMP) and the release of tumor necrosis factor (TNF). Processes for producing the compd., intermediates involved in the processes, and pharmaceutical compns. contg. the compd. are also described. Thus II, prepd. in several steps from DL-leucine, dibenzyl malonate, and L-phenylalanine methylamide, inhibited MMP-1, MMP-2, and MMP-3 with K_i = 1.5 nM, 3.1 nM, and 32 nM, resp.

IT **211368-81-9P**

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. of water-sol. hydroxysuccinate derivs. as matrix metalloproteinase inhibitors)

REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L18 ANSWER 3 OF 8 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1998:41836 HCAPLUS

DOCUMENT NUMBER: 128:116529

TITLE: N-substituted chitosan derivatives and their preparation

INVENTOR(S): Lohmann, Dieter; Randell, Donald Richard

PATENT ASSIGNEE(S): Ciba Specialty Chemicals Corporation, USA

SOURCE: U.S., 11 pp., Cont.-in-part of U.S. Ser. No. 36,635, abandoned.

CODEN: USXXAM

DOCUMENT TYPE: **Patent**

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5708152	A	19980113	US 1995-451324	19950526 <--
US 5977330	A	19991102	US 1997-929728	19970915 <--
PRIORITY APPLN. INFO.:			CH 1992-981	A 19920327
			US 1993-36635	B2 19930324
			US 1995-451324	A3 19950526

AB N-acylated chitosans contg. acid and OH groups in the N-acyl group, useful as humectants and for prevention of the adherence to and(or) formation of solid deposits on inorg. or org. substrates, are manufd. by reaction of chitosans with .beta.-lactones or .beta.-sultones contg. CCl₃ groups, which are converted to carboxy groups. Thus, reaction of chitosan gel with R(-)-4-(trichloromethyl)-2-oxetanone in N-methylpyrrolidone 24 h at 55.degree. in presence of LiCl, and hydrolysis of the CCl₃ groups in the intermediate gave 69.5% product with carboxy content 3.57 mequiv/g.

IT **76652-44-3DP**, Benzyl 2-oxetanone-4-carboxylate, reaction products with chitosan, debenzylated

RL: IMF (Industrial manufacture); PREP (Preparation)
(N-substituted chitosan derivs. for humectants and antideposition agents)

REFERENCE COUNT: 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L18 ANSWER 4 OF 8 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1997:465027 HCAPLUS

DOCUMENT NUMBER: 127:81790

TITLE: Synthesis of carboxamide-derivative matrix metalloproteinase inhibitors

INVENTOR(S): Reeve, Maxwell; Bowles, Stephen Arthur

PATENT ASSIGNEE(S): British Biotech Pharmaceuticals Limited, UK; Reeve, Maxwell; Bowles, Stephen Arthur

SOURCE: PCT Int. Appl., 29 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

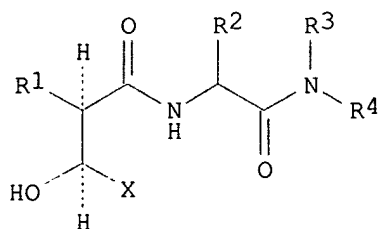
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9719050	A1	19970529	WO 1996-GB2820	19961118 <--
W: AU, BR, CA, CN, CZ, GB, HU, IL, JP, KR, MX, NO, NZ, PL, TR, US				
RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
AU 9675823	A1	19970611	AU 1996-75823	19961118 <--
GB 2321459	A1	19980729	GB 1998-6358	19961118 <--
EP 861226	A1	19980902	EP 1996-938374	19961118 <--
EP 861226	B1	20000223		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, PT, IE, FI				
JP 2000500759	T2	20000125	JP 1997-519481	19961118 <--
AT 189886	E	20000315	AT 1996-938374	19961118 <--
ES 2144271	T3	20000601	ES 1996-938374	19961118 <--
US 5986132	A	19991116	US 1998-68676	19980514 <--
PRIORITY APPLN. INFO.:			GB 1995-23637	A 19951118
			WO 1996-GB2820	W 19961118

OTHER SOURCE(S): MARPAT 127:81790

GI



AB The title compds. [I; R1 = (un)substituted alkyl, (un)substituted alkenyl, (un)substituted alkynyl, phenylalkoxy, etc.; R2 = (un)natural .alpha.-amino acid; R3 = H, alkyl; R4 = H, alkyl, perfluoroalkyl, (un)substituted NH2, (un)substituted Ph or heteroaryl; X = carboxylic acid groups or salts], useful as matrix metalloproteinase inhibitors (no data), are prepd. Thus, 3R-(2,2-dimethyl-1S-methylcarbamoylpropylcarbamoyl)-2S-hydroxy-5-methylhexanohydroxamic acid was prepd. from 2-benzoyloxycarbonyl-3R-isobutylsuccinic acid 1-benzyl ester in 6 steps.

IT 191792-09-3P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(intermediate in prepn. of (hydroxycarboxyacyl) amino acid amides as matrix metalloproteinase inhibitors)

L18 ANSWER 5 OF 8 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1995:785205 HCAPLUS
DOCUMENT NUMBER: 124:59349
TITLE: Varnish compositions containing biodegradable polymers and antifouling coating compositions
INVENTOR(S): Tendo, Kazuyoshi; Tai, Seiji; Uejima, Koichi; Tanaka, Hiroyuki
PATENT ASSIGNEE(S): Hitachi Chemical Co Ltd, Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 7 pp.
CODEN: JKXXAF
DOCUMENT TYPE: **Patent**
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 07150077	A2	19950613	JP 1993-301598	19931201 <--
PRIORITY APPLN. INFO.:			JP 1993-301598	19931201
AB Title compns. contain carboxyl-substituted biodegradable polymers and triazoles and title coatings contain the varnishes and Cu compds. The coatings, which are self-degradable under alk. condition and prevent gelation in the presence Cu compds., are useful for ship, fishing nets, etc. Thus, 25 g-solid varnish comprising 40 parts poly(DL-malic acid) and 60 parts Me2CO was mixed with 250 mg 3-amino-1H-1,2,4-triazole then mixed with 75 g powd. Cu2O to give title coating, which was left at 40.degree. for 20 days to show retention of the thickness.				
IT 76653-40-2 , Poly(benzyl malolactonate)				
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)				
(biodegradable; antifouling coatings contg. carboxyl-substituted biodegradable polymers and triazoles and copper compds.)				

L18 ANSWER 6 OF 8 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1994:247703 HCAPLUS
DOCUMENT NUMBER: 120:247703
TITLE: Preparation and use of N-substituted chitosan derivatives
INVENTOR(S): Lohmann, Dieter; Randell, Donald Richard
PATENT ASSIGNEE(S): Ciba-Geigy A.-G., Switz.
SOURCE: Eur. Pat. Appl., 19 pp.
CODEN: EPXXDW
DOCUMENT TYPE: **Patent**
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 563013	A2	19930929	EP 1993-810197	19930318 <--
EP 563013	A3	19940420		
EP 563013	B1	19970423		
R: AT, BE, CH, DE, FR, GB, IT, LI, NL, SE				
AT 152132	E	19970515	AT 1993-810197	19930318 <--
CA 2092513	AA	19930928	CA 1993-2092513	19930325 <--
AU 9335511	A1	19930930	AU 1993-35511	19930326 <--
AU 658986	B2	19950504		
BR 9301334	A	19931130	BR 1993-1334	19930326 <--
JP 06041202	A2	19940215	JP 1993-69517	19930329 <--
PRIORITY APPLN. INFO.:			CH 1992-981	A 19920327

AB Chitosans bearing -NHZ1Z2X [Z1 = CO, SO₂; Z2 = CHR1R2OH (R1 = H, OH, alkoxy, alkyl; R2 = H, alkyl); X = CO₂H, CH₂CO₂H, CH₂PO(OH)₂], NHR3 (R3 = H, Ac), and, optionally, OZ1Z2X groups, useful as antiblocking and antifouling agents and as moisturizers for skin and mucous membranes (no data), are prepd. Chitosan (mol. wt. 75,000, Ac group content 4.5%) was activated by treatment in 5% AcOH with NaOH, washed, dewatered with dioxane, and treated (25 g solids) in 500 mL N-methylpyrrolidone (I) contg. 25 g LiCl with 58.9 g (R)-4-(trichloromethyl)-2-oxetanone in 1 L I at room temp., and heated at 55.degree. for 24 h to give a product (II) with Cl-N ratio 3.06. Sapon. of II in aq. NaOH at 0-5.degree. and then at room temp. gave 29.9 g product with H₂O content 19.11% and CO₂H content 3.57 mequiv./g. Use of the products as antiagglomerating agents in the crystn. of inorg. salts is exemplified.

IT **76652-44-3DP**, reaction products with chitosan
 RL: PREP (Preparation); USES (Uses)
 (prepn. and use of)

L18 ANSWER 7 OF 8 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1981:516201 HCAPLUS
 DOCUMENT NUMBER: 95:116201
 TITLE: Malic acid polymers
 INVENTOR(S): Lenz, Robert W.; Vert, Michel
 PATENT ASSIGNEE(S): Research Corp., USA
 SOURCE: U.S., 6 pp.
 CODEN: USXXAM
 DOCUMENT TYPE: **Patent**
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 4265247	A	19810505	US 1979-92183	19791107 <--
PRIORITY APPLN. INFO.:			US 1979-92183	19791107

AB Polymers contg. pendant carboxy groups are prepd. from .beta.-malolactone or its derivs. and can be used as absorbable sutures or drug carriers for slow-release medications. Thus, malolactonic acid benzyl ester [**76652-44-3**] (prepd. from bromosuccinic acid [923-06-8] by way of the monobenzyl ester) was polymd. in an inert atm. in the presence of catalysts such as betaine [107-43-7] to give a polymer [76653-75-3] (m. 80.degree.) in 55% yield after 21 days at room temp. The side chain benzyl group was selectively cleaved to the corresponding free carboxylic acid by catalytic hydrogenolysis. Thus, poly(.beta.-malic acid) [78666-19-0] was isolated as a hygroscopic white powder.

IT **76653-40-2P**
 RL: PREP (Preparation)
 (prepn. and conversion to poly(.beta.-malic acid))
 IT **76652-44-3P**
 RL: RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
 (prepn. and polymn. of)

L18 ANSWER 8 OF 8 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1981:481774 HCAPLUS
 DOCUMENT NUMBER: 95:81774
 TITLE: Polymers from alkoxy carbonyl propiolactone for absorbable surgical goods
 PATENT ASSIGNEE(S): Research Corp., USA
 SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: **Patent**
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 56026929	A2	19810316	JP 1979-100800	19790809 <--
PRIORITY APPLN. INFO.:			JP 1979-100800	19790809

GI

O

CO₂CH₂Ph I

AB Polymers derived from 4-alkoxycarbonyl-2-oxetanone or its derivs. are useful as materials for absorbable sutures. Thus, a mixt. of 1 mol 4-benzyloxycarbonyl-2-oxetanone (I) and 0.001 mol betaine [107-43-7] was stirred 21 days at room temp. to give 55% polymer [76653-40-2] having mol. wt. 7000 and m.p. 80.degree..

IT 76653-40-2P.

RL: IMF (Industrial manufacture); PREP (Preparation)
(manuf. of, for absorbable sutures)

=>

=>

=> select hit rn 118 1-8
E32 THROUGH E36 ASSIGNED

=> fil reg

FILE 'REGISTRY' ENTERED AT 16:13:32 ON 28 JAN 2004
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STRUCTURE FILE UPDATES: 27 JAN 2004 HIGHEST RN 642407-31-6
DICTIONARY FILE UPDATES: 27 JAN 2004 HIGHEST RN 642407-31-6

TSCA INFORMATION NOW CURRENT THROUGH JULY 14, 2003

Please note that search-term pricing does apply when
conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. For more
information enter HELP PROP at an arrow prompt in the file or refer
to the file summary sheet on the web at:
<http://www.cas.org/ONLINE/DBSS/registryss.html>

=>

=>

=> s e32-e36

1 76652-44-3/BI
(76652-44-3/RN)


```

1 76653-40-2/BI
  (76653-40-2/RN)
1 250375-83-8/BI
  (250375-83-8/RN)
1 191792-09-3/BI
  (191792-09-3/RN)
1 211368-81-9/BI
  (211368-81-9/RN)
L20 5 (76652-44-3/BI OR 76653-40-2/BI OR 250375-83-8/BI OR 191792-09-3
      /BI OR 211368-81-9/BI)

```

=>
=>

=> fil reg
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STRUCTURE FILE UPDATES: 27 JAN 2004 HIGHEST RN 642407-31-6
DICTIONARY FILE UPDATES: 27 JAN 2004 HIGHEST RN 642407-31-6

TSCA INFORMATION NOW CURRENT THROUGH JULY 14, 2003

Please note that search-term pricing does apply when
conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. For more
information enter HELP PROP at an arrow prompt in the file or refer
to the file summary sheet on the web at:
<http://www.cas.org/ONLINE/DBSS/registryss.html>

=> fil hcaplus
FILE 'HCAPLUS' ENTERED AT 16:14:50 ON 28 JAN 2004
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FILE COVERS 1907 - 28 Jan 2004 VOL 140 ISS 5
FILE LAST UPDATED: 27 Jan 2004 (20040127/ED)

This file contains CAS Registry Numbers for easy and accurate
substance identification.

=> select hit rn 116 1-10

E37 THROUGH E45 ASSIGNED

=> fil reg

FILE 'REGISTRY' ENTERED AT 16:14:58 ON 28 JAN 2004
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Property values tagged with IC are from the ZIC/VINITI data file
 provided by InfoChem.

STRUCTURE FILE UPDATES: 27 JAN 2004 HIGHEST RN 642407-31-6
 DICTIONARY FILE UPDATES: 27 JAN 2004 HIGHEST RN 642407-31-6

TSCA INFORMATION NOW CURRENT THROUGH JULY 14, 2003

Please note that search-term pricing does apply when
 conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. For more
 information enter HELP PROP at an arrow prompt in the file or refer
 to the file summary sheet on the web at:
<http://www.cas.org/ONLINE/DBSS/registryss.html>

=>

=>

=> s e37-e45

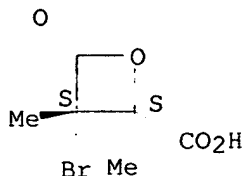
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 1 168037-32-9/BI
 (168037-32-9/RN)
 1 100494-60-8/BI
 (100494-60-8/RN)
 1 171866-63-0/BI
 (171866-63-0/RN)
 1 340829-88-1/BI
 (340829-88-1/RN)
 1 340829-89-2/BI
 (340829-89-2/RN)
 1 76432-75-2/BI
 (76432-75-2/RN)
 1 85548-57-8/BI
 (85548-57-8/RN)
 1 85548-58-9/BI
 (85548-58-9/RN)

L21 9 (90730-97-5/BI OR 168037-32-9/BI OR 100494-60-8/BI OR 171866-63-
 0/BI OR 340829-88-1/BI OR 340829-89-2/BI OR 76432-75-2/BI OR
 85548-57-8/BI OR 85548-58-9/BI)

=> d ide can l21 1-9

L21 ANSWER 1 OF 9 REGISTRY COPYRIGHT 2004 ACS on STN
 RN 340829-89-2 REGISTRY
 CN 2-Oxetanecarboxylic acid, 3-bromo-2,3-dimethyl-4-oxo-, (2R,3R)-rel- (9CI)
 (CA INDEX NAME)
 FS STEREOSEARCH
 MF C6 H7 Br O4
 SR CA
 LC STN Files: CA, CAPLUS

Relative stereochemistry.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

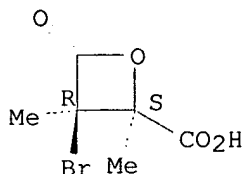
2 REFERENCES IN FILE CA (1907 TO DATE)
2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 138:38867

REFERENCE 2: 135:5286

L21 ANSWER 2 OF 9 REGISTRY COPYRIGHT 2004 ACS on STN
RN 340829-88-1 REGISTRY
CN 2-Oxetanecarboxylic acid, 3-bromo-2,3-dimethyl-4-oxo-, (2R,3S)-rel- (9CI)
(CA INDEX NAME)
FS STEREOSEARCH
MF C6 H7 Br O4
SR CA
LC STN Files: CA, CAPLUS

Relative stereochemistry.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

2 REFERENCES IN FILE CA (1907 TO DATE)
2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 138:38867

REFERENCE 2: 135:5286

L21 ANSWER 3 OF 9 REGISTRY COPYRIGHT 2004 ACS on STN
RN 171866-63-0 REGISTRY
CN 2-Oxetanecarboxylic acid, 4-oxo-, polymer with 3,6-dimethyl-1,4-dioxane-2,5-dione (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN 1,4-Dioxane-2,5-dione, 3,6-dimethyl-, polymer with 4-oxo-2-oxetanecarboxylic acid (9CI)
MF (C6 H8 O4 . C4 H4 O4)x
CI PMS
PCT Polyester, Polyester formed
SR CA
LC STN Files: CA, CAPLUS, TOXCENTER, USPATFULL

CM 1

CRN 90730-97-5
CMF C4 H4 O4

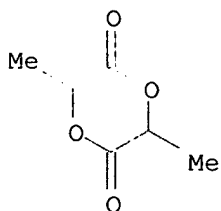
O



CO₂H

CM 2

CRN 95-96-5
CMF C6 H8 O4



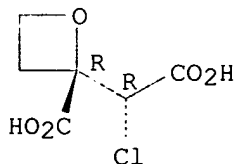
1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 124:37707

L21 ANSWER 4 OF 9 REGISTRY COPYRIGHT 2004 ACS on STN
RN 168037-32-9 REGISTRY
CN threo-Pentamic acid, 3-C-carboxy-2-chloro-2,4-dideoxy-, 5,3-lactone (9CI)
(CA INDEX NAME)
FS STEREOSEARCH
DR 85548-55-6
MF C6 H5 Cl O6
SR CA
LC STN Files: CA, CAPLUS, USPATFULL

Relative stereochemistry.

O



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

2 REFERENCES IN FILE CA (1907 TO DATE)
2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 123:198258

REFERENCE 2: 99:38304

L21 ANSWER 5 OF 9 REGISTRY COPYRIGHT 2004 ACS on STN

RN 100494-60-8 REGISTRY

CN 2-Oxetaneacetic acid, 2-carboxy-4-oxo-, polymer with 1,3-diisocyanatomethylbenzene, .alpha.-hydro-.omega.-hydroxypoly[oxy(methyl-1,2-ethanediyl)], 2-hydroxyethyl 2-methyl-2-propenoate and 2-methyl-2-propenoic acid (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN 2-Propenoic acid, 2-methyl-, 2-hydroxyethyl ester, polymer with 2-carboxy-4-oxo-2-oxetaneacetic acid, 1,3-diisocyanatomethylbenzene, .alpha.-hydro-.omega.-hydroxypoly[oxy(methyl-1,2-ethanediyl)] and 2-methyl-2-propenoic acid (9CI)

CN 2-Propenoic acid, 2-methyl-, polymer with 2-carboxy-4-oxo-2-oxetaneacetic acid, 1,3-diisocyanatomethylbenzene, .alpha.-hydro-.omega.-hydroxypoly[oxy(methyl-1,2-ethanediyl)] and 2-hydroxyethyl 2-methyl-2-propenoate (9CI)

CN Benzene, 1,3-diisocyanatomethyl-, polymer with 2-carboxy-4-oxo-2-oxetaneacetic acid, .alpha.-hydro-.omega.-hydroxypoly[oxy(methyl-1,2-ethanediyl)], 2-hydroxyethyl 2-methyl-2-propenoate and 2-methyl-2-propenoic acid (9CI)

CN Poly[oxy(methyl-1,2-ethanediyl)], .alpha.-hydro-.omega.-hydroxy-, polymer with 2-carboxy-4-oxo-2-oxetaneacetic acid, 1,3-diisocyanatomethylbenzene, 2-hydroxyethyl 2-methyl-2-propenoate and 2-methyl-2-propenoic acid (9CI)

MF (C9 H6 N2 O2 . C6 H10 O3 . C6 H6 O6 . C4 H6 O2 . (C3 H6 O)n H2 O)x

CI PMS

PCT Polyacrylic, Polyester, Polyester formed, Polyether, Polyurethane, Polyurethane formed

SR CA

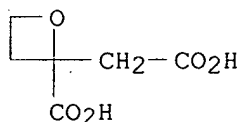
LC STN Files: CA, CAPLUS

CM 1

CRN 100494-59-5

CMF C6 H6 O6

O

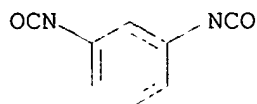


CM 2

CRN 26471-62-5

CMF C9 H6 N2 O2

CCI IDS



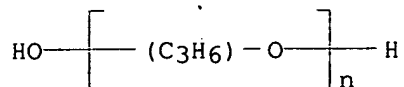
D1-Me

CM 3

CRN 25322-69-4

CMF (C3 H6 O)_n H2 O

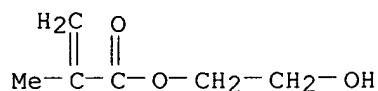
CCI IDS, PMS



CM 4

CRN 868-77-9

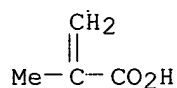
CMF C6 H10 O3



CM 5

CRN 79-41-4

CMF C4 H6 O2



1 REFERENCES IN FILE CA (1907 TO DATE)

1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 104:90089

L21 ANSWER 6 OF 9 REGISTRY COPYRIGHT 2004 ACS on STN

RN 90730-97-5 REGISTRY

CN 2-Oxetanecarboxylic acid, 4-oxo- (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN Malic acid, .beta.-lactone (6CI)

OTHER NAMES:

CN 4-Oxo-2-oxetanecarboxylic acid

CN Malolactonic acid

FS 3D CONCORD

DR 137257-52-4

MF C4 H4 O4

CI COM

LC STN Files: BEILSTEIN*, CA, CAOLD, CAPLUS, TOXCENTER
(*File contains numerically searchable property data)

O

CO₂H

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

7 REFERENCES IN FILE CA (1907 TO DATE)
 3 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
 7 REFERENCES IN FILE CAPLUS (1907 TO DATE)
 1 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

REFERENCE 1: 137:353339

REFERENCE 2: 133:182803

REFERENCE 3: 132:322157

REFERENCE 4: 127:81855

REFERENCE 5: 124:344800

REFERENCE 6: 123:170439

REFERENCE 7: 54:37583

L21 ANSWER 7 OF 9 REGISTRY COPYRIGHT 2004 ACS on STN

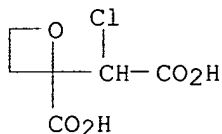
RN 85548-58-9 REGISTRY

CN D-erythro-Pentamic acid, 3-C-carboxy-4-chloro-2,4-dideoxy-, 1,3-lactone
 (9CI) (CA INDEX NAME)

MF C6 H5 Cl O6

LC STN Files: CA, CAPLUS, USPATFULL

O



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
 1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 99:38304

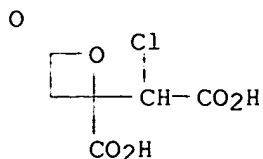
L21 ANSWER 8 OF 9 REGISTRY COPYRIGHT 2004 ACS on STN

RN 85548-57-8 REGISTRY

CN L-threo-Pentamic acid, 3-C-carboxy-2-chloro-2,4-dideoxy-, 5,3-lactone
 (9CI) (CA INDEX NAME)

MF C6 H5 Cl O6

LC STN Files: CA, CAPLUS, USPATFULL



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 99:38304

L21 ANSWER 9 OF 9 REGISTRY COPYRIGHT 2004 ACS on STN

RN 76432-75-2 REGISTRY

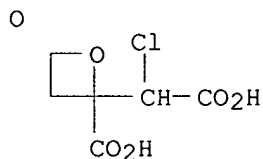
CN erythro-Pentamic acid, 3-C-carboxy-2-chloro-2,4-dideoxy-, 5,3-lactone
(9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN DL-erythro-Pentamic acid, 3-C-carboxy-2-chloro-2,4-dideoxy-, 5,3-lactone

MF C6 H5 Cl O6

LC STN Files: CA, CAPLUS, USPATFULL



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 94:83631